

## CHAPTER 13

### NON-FINANCIAL AND CURRENT LIABILITIES

#### ASSIGNMENT CLASSIFICATION TABLE

Topics	Brief Exercises	Exercises	Problems
1& 2. Concept of liabilities; definition, measurement and classification.	1, 6, 20	1	1, 2, 3, 4, 7
3. Current liabilities including accounts and notes payable, dividends payable, sales and income tax payable, deposits and short-term obligations expected to be refinanced.	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	2, 3, 4, 5, 6, 7, 8, 9	1, 2, 3, 4
4. Employee-related liabilities.	15, 16, 17, 18, 19	7, 9, 10, 11, 12, 13, 14	3, 5, 6, 7
5. Asset retirement obligations.	20, 21, 22	15, 16	1, 4, 8
6. Unearned revenues.	23, 24	7 17	8, 9, 16
7. Product guaranties, warranties and other customer programs	25, 26, 27, 28, 29	7, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28	3, 4, 5, 6, 10, 11, 12, 13, 14, 15
8. Contingencies, guarantees and uncertain commitments.	30, 31	7, 29	8, 9, 12, 16, 17
9. Presentation and analysis.	32	8, 9, 30, 31, 32	3, 8, 9, 11, 16, 17
10 IFRS and ASPE compared	13,14, 21, 22, 29, 30, 31	1, 4, 6, 7, 8, 9, 14, 15, 16, 19, 20, 21, 22, 24, 29	1, 3, 7, 12, 14, 15, 17

## ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E13-1	Balance sheet classification of various liabilities.	Simple	10-15
E13-2	Accounts and notes payable.	Simple	10-15
E13-3	Notes payable with reversing entry.	Moderate	15-20
E13-4	Liability for returnable containers.	Moderate	15-20
E13-5	Entries for sales tax.	Moderate	25-35
E13-6	Income Tax.	Moderate	15-20
E13-7	Financial statement impact of liability transactions.	Moderate	30-35
E13-8	Refinancing of short-term debt.	Moderate	20-25
E13-9	Refinancing of short-term debt.	Simple	10-15
E13-10	Payroll tax entries.	Moderate	15-20
E13-11	Compensated absences – vacation and sick pay.	Moderate	40-45
E13-12	Compensated absences – vacation and sick pay.	Moderate	25-30
E13-13	Compensated absences – parental benefits.	Moderate	20-25
E13-14	Bonus calculation and income statement preparation.	Complex	15-20
E13-15	Asset retirement obligation.	Moderate	30-35
E13-16	Asset retirement obligation.	Moderate	40-50
E13-17	Unearned revenue	Simple	10-15
E13-18	Deposits, HST and ARO	Moderate	10-15
E13-19	Warranties – assurance-type and cash basis.	Simple	10-15
E13-20	Warranties – assurance-type.	Moderate	15-20
E13-21	Warranties – assurance-type and service-type.	Moderate	20-25
E13-22	Warranties – assurance-type and service-type.	Moderate	25-30
E13-23	Customer loyalty program.	Moderate	15-20
E13-24	Premiums.	Moderate	15-20
E13-25	Premiums.	Moderate	20-30
E13-26	Premiums.	Simple	10-15
E13-27	Coupons and rebates.	Moderate	15-20
E13-28	Customer returns	Simple	10-15
E13-29	Contingencies and commitments.	Moderate	20-30
E13-30	Ratio calculations and discussion.	Simple	15-20
E13-31	Ratio calculations and analysis.	Simple	20-25
E13-32	Ratio calc. and effect of transactions.	Moderate	15-25

**ASSIGNMENT CHARACTERISTICS TABLE (CONTINUED)**

<b>Item</b>	<b>Description</b>	<b>Level of Difficulty</b>	<b>Time (minutes)</b>
P13-1	Current liability entries and adjustments.	Simple	40-50
P13-2	Instalment notes.	Moderate	40-45
P13-3	Current liabilities: various.	Complex	45-55
P13-4	Asset retirement obligation and warranties.	Moderate	25-35
P13-5	Payroll tax entries.	Moderate	25-35
P13-6	Payroll tax entries.	Moderate	35-45
P13-7	Bonus calculation.	Moderate	35-40
P13-8	Loss contingencies: entries and essay.	Moderate	45-50
P13-9	Advances, self-insurance, loss contingencies, guarantees and commitments.	Moderate	35-40
P13-10	Assurance-type warranties and cash basis.	Simple	25-30
P13-11	Assurance-type and service-type warranties.	Moderate	20-30
P13-12	Warranty calculations.	Moderate	30-35
P13-13	Premium entries.	Moderate	30-45
P13-14	Premium entries and financial statement presentation.	Moderate	30-45
P13-15	Warranties and premiums.	Simple	35-40
P13-16	Guarantees and contingencies.	Complex	35-45
P13-17	Loss contingencies: entries and essays.	Moderate	45-50

## SOLUTIONS TO BRIEF EXERCISES

### BRIEF EXERCISE 13-1

- (a) Working capital is the excess of total current assets over total current liabilities. It represents the liquid buffer that is available to meet the financial demands of the company's operating cycle. Current liabilities place a demand on the company's current assets. Management of the due dates of current liabilities and management of current assets to generate cash on a timely basis are important for effective management of business operations. Effective management of working capital to achieve high liquidity may also contribute to positive cash from operating activities as seen on the statement of cash flows.
- (b) Wellson can improve its management of working capital by focusing on management of current liabilities as well as current assets. For example, if Wellson has a cash flow shortage, it can take advantage of the full credit period extended by its suppliers. As another example, Wellson may also time the due dates of short-term notes payable to coincide with expected periods of positive cash flow.

### BRIEF EXERCISE 13-2

07/01	Purchases .....	60,000	
	Accounts Payable.....		60,000
	Freight-in.....	1,200	
	Cash .....		1,200
07/03	Accounts Payable.....	6,000	
	Purchase Returns and Allowances ..		6,000
07/10	Accounts Payable.....	54,000	
	Cash (\$54,000 X 98%) .....		52,920
	Purchase Discounts .....		1,080

**BRIEF EXERCISE 13-3****(a)**

<b>07/01</b>	<b>Inventory (\$60,000 X 98%) .....</b>	<b>58,800</b>	
	<b>    Accounts Payable .....</b>		<b>58,800</b>
	<b>Inventory .....</b>	<b>1,200</b>	
	<b>    Cash .....</b>		<b>1,200</b>
<b>07/03</b>	<b>Accounts Payable (\$6,000 X 98%) .....</b>	<b>5,880</b>	
	<b>    Inventory .....</b>		<b>5,880</b>
<b>07/10</b>	<b>Accounts Payable (\$54,000 X 98%) .....</b>	<b>52,920</b>	
	<b>    Cash .....</b>		<b>52,920</b>
<b>(b)</b>			
<b>07/30</b>	<b>Accounts Payable .....</b>	<b>52,920</b>	
	<b>    Purchase Discounts Lost .....</b>	<b>1,080</b>	
	<b>    Cash .....</b>		<b>54,000</b>

**BRIEF EXERCISE 13-4**

<b>11/01/17</b>	<b>Cash .....</b>	<b>40,000</b>	
	<b>    Notes Payable .....</b>		<b>40,000</b>
<b>12/31/17</b>	<b>Interest Expense .....</b>	<b>600</b>	
	<b>    Interest Payable .....</b>		<b>600</b>
	<b>        (\$40,000 X 9% X 2/12)</b>		
<b>02/01/18</b>	<b>Notes Payable .....</b>	<b>40,000</b>	
	<b>    Interest Payable .....</b>	<b>600</b>	
	<b>    Interest Expense .....</b>	<b>300</b>	
	<b>    Cash .....</b>		<b>40,900</b>

**BRIEF EXERCISE 13-5**

<b>01/01/18</b>	<b>Interest Payable .....</b>	<b>600</b>	
	<b>Interest Expense .....</b>		<b>600</b>
<b>02/01/18</b>	<b>Notes Payable .....</b>	<b>40,000</b>	
	<b>Interest Expense .....</b>	<b>900</b>	
	<b>Cash.....</b>		<b>40,900</b>

**BRIEF EXERCISE 13-6**

(a)  
Using a financial calculator:

<b>PV</b>	<b>\$ 60,000</b>	<b>Yields .744 % per month or 8.9% per year</b>
<b>I</b>	<b>? %</b>	
<b>N</b>	<b>3</b>	
<b>PMT</b>	<b>0</b>	
<b>FV</b>	<b>\$ (61,350)</b>	
<b>Type</b>	<b>0</b>	

Excel formula =RATE(nper,pmt,pv,fv,type)

(b)

<b>11/01/17</b>	<b>Cash .....</b>	<b>60,000</b>	
	<b>Notes Payable .....</b>		<b>60,000</b>
<b>12/31/17</b>	<b>Interest Expense .....</b>	<b>900</b>	
	<b>Notes Payable .....</b>		<b>900</b>
	<b>(\$1,350 X 2/3 = \$900)</b>		
	<b>(alternately could record \$60,000 X .00744 x 2 = \$893)</b>		
<b>02/01/18</b>	<b>Interest Expense .....</b>	<b>450</b>	
	<b>Notes Payable .....</b>		<b>450</b>
	<b>Notes Payable .....</b>	<b>61,350</b>	
	<b>Cash.....</b>		<b>61,350</b>

**BRIEF EXERCISE 13-7**

<b>(a)</b>	<b>Cash .....</b>	<b>13,000</b>	
	<b>Sales .....</b>		<b>8,000</b>
	<b>Returnable Deposits .....</b>		<b>5,000</b>
<b>(b)</b>	<b>Returnable Deposits (\$5,000 x 60%) .</b>	<b>3,000</b>	
	<b>Container Sales Revenue .....</b>		<b>3,000</b>

**BRIEF EXERCISE 13-8**

<b>Accounts Receivable .....</b>	<b>42,375.00</b>	
<b>Sales Revenue.....</b>		<b>37,500.00</b>
<b>HST Payable (\$37,000 X 13%).....</b>		<b>4,875.00</b>
<b>Furniture and Fixtures .....</b>	<b>2,860.00</b>	
<b>HST Receivable (\$2,860 X 13%).....</b>	<b>371.80</b>	
<b>Cash .....</b>		<b>3,231.80</b>

**BRIEF EXERCISE 13-9**

<b>Accounts Receivable .....</b>	<b>37,500.00</b>	
<b>Sales Revenue (\$37,500 ÷ 1.13).....</b>		<b>33,185.84</b>
<b>HST Payable (\$37,500 ÷ 1.13 X .13) .....</b>		<b>4,314.16</b>
<b>Furniture and Fixtures (\$28,600 ÷ 1.13) .....</b>	<b>2,530.97</b>	
<b>HST Receivable (\$28,600 ÷ 1.13 X .13) .....</b>	<b>329.03</b>	
<b>Cash .....</b>		<b>2,860.00</b>

**BRIEF EXERCISE 13-10**

(a) Purchases .....	29,400	
GST Receivable (\$29,400 X 5%) .....	1,470	
Accounts Payable.....		30,870
 (b) Accounts Receivable .....	47,250	
Sales Revenue .....		45,000
GST Payable .....		2,250
 (c) GST Payable .....	2,250	
Cash .....		780
GST Receivable .....		1,470

**BRIEF EXERCISE 13-11**

(a) Income Tax Expense.....	12,800	
Cash (\$3,200 X 4).....		12,800
 Income Tax Expense (\$20,000–\$12,800) ..	7,200	
Income Tax Payable .....		7,200
 (b) At year end, the company would report Income Tax Payable of \$7,200 in current liabilities.		

**BRIEF EXERCISE 13-12**

(a) Income Tax Receivable.....	2,600	
Income Tax Expense.....		2,600
(\$12,800 – \$10,200)		
 (b) At year end, the company would report Income Tax Receivable of \$2,600 in current assets.		



**BRIEF EXERCISE 13-13**

- (a) Under IFRS, the \$700,000 debt is reclassified as current because the long-term debt agreement is violated and the liability becomes payable on demand. It should be noted that under IFRS, the debt is reclassified as current, even if the lender agrees between the date of the statement of financial position and the date the financial statements are released that it will not demand repayment because of the violation.
- (b) Under ASPE, the \$700,000 debt is reclassified as current unless the creditor waives, in writing, the covenant (agreement) requirements, or the violation has been corrected within the grace period that is usually given in these agreements and it is likely that the company will not violate the covenant requirements within a year from the balance sheet date.

**BRIEF EXERCISE 13-14**

- (a) Under IFRS, since the debt is due within 12 months from the reporting date, it is classified as a current liability. This classification holds even if long-term refinancing has been completed before the financial statements are released. The only exception for continuing long-term classification is if, at the balance sheet date, the entity expects to refinance it or roll it over under an existing agreement for at least 12 months and the decision is solely at its discretion.
- (b) Under IFRS, the whole \$500,000 of maturing debt would still be classified as a current obligation at December 31, 2017. The international standard has a stringent requirement that the agreement must be firm at the date of the statement of financial position in order to qualify for classification as long-term. (This assumes Burr had not entered into a long-term agreement prior to the statement of financial position date of Dec. 31, 2017.)
- (c) For part (a), under ASPE, the debt would be classified as a long-term liability. If there is irrefutable evidence by the time the financial statements are completed and released that the debt has been or will be converted into a long-term obligation, ASPE allows currently maturing debt to be classified as long-term on the balance sheet. In this case, the debt was refinanced before the financial statements were completed and released.

For part (b), under ASPE, the debt would be classified as a current liability since there was not irrefutable evidence by the time the financial statements were completed that the debt has been or will be converted into a long-term obligation. (This assumes Burr had not entered into a long-term agreement prior to the release of the financial statements of Dec. 31, 2017.) In addition, since repayment occurred before funds were obtained through long-term financing, the repayment used existing current assets.

**BRIEF EXERCISE 13-15**

<b>Salaries and Wages Expense .....</b>	<b>23,000</b>	
<b>Employee Income Tax Deductions</b>		
<b>Payable .....</b>		<b>3,426</b>
<b>CPP Contributions Payable .....</b>		<b>990</b>
<b>EI Premiums Payable .....</b>		<b>420</b>
<b>Health Insurance Premiums Payable .....</b>		<b>250</b>
<b>Cash .....</b>		<b>17,914</b>

**BRIEF EXERCISE 13-16**

(a)

<b>Payroll Tax Expense .....</b>	<b>1,578</b>	
<b>EI Premiums Payable (\$420 X 1.4) .....</b>		<b>588</b>
<b>CPP Contributions Payable .....</b>		<b>990</b>

(b)

<b>Employee Income Tax Deductions Payable .....</b>	<b>3,426</b>	
<b>CPP Contributions Payable (\$990 X 2) .....</b>	<b>1,980</b>	
<b>EI Premiums Payable (\$420 + \$588) .....</b>	<b>1,008</b>	
<b>Cash .....</b>		<b>6,414</b>

**BRIEF EXERCISE 13-17**

<b>Salaries and Wages Expense .....</b>	<b>30,000</b>	
<b>Vacation Wages Payable .....</b>		<b>30,000</b>
<b>(30 X 1 X \$1,000)</b>		

**BRIEF EXERCISE 13-18****December 1, 2017:**

<b>Employee Benefit Expense*</b> .....	<b>11,952</b>	
<b>    Parental Leave Benefits Payable</b> .....		<b>11,952</b>

<b>* Salary for 17 weeks (\$74,000 ÷ 52 X 17)</b>	<b>\$24,192</b>	
<b>Less: employment insurance</b>		
<b>    payments (\$720/week X 17 weeks)</b>	<b>(12,240)</b>	
<b>Employee Benefit Expense</b>	<b><u>\$11,952</u></b>	

For each of the 4 weeks in December, 2017, Laurin Corporation will pay Ruzbeh Awad a top up amount and record the payments as follows:

<b>Parental Leave Benefits Payable</b> .....	<b>703.08</b>	
<b>    Cash</b> .....		<b>703.08</b>
<b>(\$74,000 ÷ 52 weeks) = \$1,423.08; \$1,423.08 – \$720.00 = \$703.08</b>		

**BRIEF EXERCISE 13-19**

<b>12/31/17</b>	<b>Bonus Expense</b> .....	<b>350,000</b>	
	<b>    Bonus Payable</b> .....		<b>350,000</b>
<b>2/15/18</b>	<b>Bonus Payable</b> .....	<b>350,000</b>	
	<b>    Cash</b> .....		<b>350,000</b>

**BRIEF EXERCISE 13-20**

<b>Drilling Platform .....</b>	<b>500,249</b>	
<b>    Asset Retirement Obligation .....</b>		<b>500,249</b>
<b>    (\$1,000,000 X .50025)</b>		

**Using a financial calculator:**

<b>PV</b>	<b>?</b>	<b>Yields \$ 500,248.97</b>
<b>I</b>	<b>8%</b>	
<b>N</b>	<b>9</b>	
<b>PMT</b>	<b>0</b>	
<b>FV</b>	<b>\$ (1,000,000)</b>	
<b>Type</b>	<b>0</b>	

**Using Excel: =PV(rate,nper,pmt,fv,type)**

**BRIEF EXERCISE 13-21**

**(a) IFRS**

<b>Depreciation Expense .....</b>	<b>1,166,694</b>	
<b>    Accumulated Depreciation –</b>		<b>1,166,694</b>
<b>    Drilling Platform .....</b>		
<b>    [\$10,000,000 + \$500,249) ÷ 9 years]</b>		
<b>Interest Expense .....</b>	<b>40,020</b>	
<b>    Asset Retirement Obligation .....</b>		<b>40,020</b>
<b>    (\$500,249 X 8%)</b>		

**(b) ASPE**

<b>Depreciation Expense .....</b>	<b>1,166,694</b>	
<b>    Accumulated Depreciation–</b>		<b>1,166,694</b>
<b>    Drilling Platform .....</b>		
<b>    [\$10,000,000 + \$500,249) ÷ 9 years]</b>		
<b>Accretion Expense .....</b>	<b>40,020</b>	
<b>    Asset Retirement Obligation .....</b>		<b>40,020</b>
<b>    (\$500,249 X 8%)</b>		

**BRIEF EXERCISE 13-22****(a) IFRS**

Inventory .....	<b>61,942</b>	
Asset Retirement Obligation .....		<b>61,942</b>

**(b) ASPE**

Drilling Platform .....	<b>61,942</b>	
Asset Retirement Obligation .....		<b>61,942</b>

**BRIEF EXERCISE 13-23**

Aug. 1 Cash (12,000 X \$18) .....	<b>216,000</b>	
Unearned Subscriptions Revenue		<b>216,000</b>
Dec. 31 Unearned Subscriptions Revenue .....	<b>90,000</b>	
Sales Revenue .....		<b>90,000</b>
(\$216,000 X 5/12 = \$90,000)		

**BRIEF EXERCISE 13-24**

(a) Cash .....	<b>104,500</b>	
Service Revenue .....		<b>45,000</b>
Unearned Revenue .....		<b>59,500</b>

	<u>Cash</u>	<u>Earned</u>	<u>Unearned</u>
200 @ \$100	\$20,000	\$20,000	
100 @ \$95	9,500		\$9,500
300 @ \$250	<u>75,000</u>	<u>25,000</u>	<u>50,000</u>
	<u>\$104,500</u>	<u>\$45,000</u>	<u>\$59,500</u>

- (b) The Current portion of the unearned revenue will be \$9,500 plus \$25,000 relating to the three-year plan. The non-current portion will be \$25,000 for the last year of the three-year plan.

**BRIEF EXERCISE 13-25**

<b>2017</b>	<b>Cash</b> .....	<b>2,500,000</b>	
	<b>Sales Revenue</b> .....		<b>2,500,000</b>
<b>2017</b>	<b>Warranty Expense</b> .....	<b>68,000</b>	
	<b>Materials, Cash, Payables, etc..</b>		<b>68,000</b>
<b>12/31/17</b>	<b>Warranty Expense</b> .....	<b>420,000</b>	
	<b>Warranty Liability</b> .....		<b>420,000</b>

**BRIEF EXERCISE 13-26**

<b>2017</b>	<b>Cash</b> .....	<b>2,500,000</b>	
	<b>Sales Revenue</b> .....		<b>1,900,000</b>
	<b>Unearned Warranty Revenue..</b>		<b>600,000</b>
<b>2017</b>	<b>Warranty Expense</b> .....	<b>68,000</b>	
	<b>Materials, Cash, Payable, etc..</b>		<b>68,000</b>
<b>12/31/17</b>	<b>Unearned Warranty Revenue</b> .....	<b>150,000</b>	
	<b>Warranty Revenue</b> .....		<b>150,000</b>
	<b>\$600,000 X 25%</b>		

**BRIEF EXERCISE 13-27**

<b>(a)</b>	<b>Cash</b> .....	<b>1,980,000</b>	
	<b>Unearned Warranty Revenue</b> .....		<b>1,980,000</b>
	<b>(20,000 X \$99)</b>		
<b>(b)</b>	<b>Warranty Expense</b> .....	<b>180,000</b>	
	<b>Materials, Cash, Payables, etc. ...</b>		<b>180,000</b>
<b>(c)</b>	<b>Unearned Warranty Revenue</b> .....	<b>330,000</b>	
	<b>Warranty Revenue</b> .....		<b>330,000</b>
	<b>[\$1,980,000 X (\$180,000/\$1,080,000*)]</b>		
	<b>* \$180,000 + \$900,000 = \$1,080,000</b>		

**BRIEF EXERCISE 13-28****(a) July 10, 2017**

<b>Accounts Receivable .....</b>	<b>1,700,000</b>	
<b>Refund Liability (15% X \$1,700,000)</b>		<b>255,000</b>
<b>Sales Revenue .....</b>		<b>1,445,000</b>
<b>Cost of Goods Sold .....</b>	<b>816,000</b>	
<b>Estimated Inventory Returns .....</b>	<b>144,000*</b>	
<b>Inventory .....</b>		<b>960,000</b>
<b>*(\$960,000 X 15%)</b>		

**(b) October 11, 2017**

<b>Refund Liability .....</b>	<b>255,000</b>	
<b>Accounts Receivable .....</b>		<b>248,000</b>
<b>Sales Revenue .....</b>		<b>7,000</b>
<b>Inventory .....</b>	<b>140,047*</b>	
<b>Cost of Goods Sold .....</b>	<b>3,953**</b>	
<b>Estimated Inventory Returns .....</b>		<b>144,000</b>
<b>*(\$960,000 ÷ \$1,700,000) X \$248,000</b>		
<b>**144,000-140,047</b>		



**BRIEF EXERCISE 13-29**

**(a) IFRS**

Inventory of Premiums .....	250,000	
Cash .....		250,000
100,000 X \$2.50		

Cash.....	4,000,000	
Sales Revenue.....		3,600,000
Unearned Revenue.....		400,000*
*1,000,000 X \$4.00 X 10%		

Cash.....	80,000**	
Premium Expense .....	120,000	
Inventory of Premiums.....		200,000***
** 240,000/3 X \$1.00		
*** 240,000/3 X \$2.50		

Unearned Revenue.....	320,000	
Sales Revenue .....		320,000
240,000/(1,000,000 X 30%) X \$400,000		

**(b) ASPE**

Inventory of Premiums .....	250,000	
Cash .....		250,000
100,000 X \$2.50		

Cash.....	4,000,000	
Sales Revenue.....		4,000,000

Cash.....	80,000**	
Premium Expense .....	120,000	
Inventory of Premiums.....		200,000***
**240,000/3 X \$1.00		
***240,000/3 X \$2.50		

Premium Expense .....	30,000	
Estimated Liability for Premiums .....		30,000
[(1,000,000 X 30%) – 240,000] / 3 X (\$2.50 - \$1.00)		

**BRIEF EXERCISE 13-30**

(a) **Litigation Expense** ..... 700,000  
**Litigation Liability** ..... 700,000

(b) **Litigation Expense** ..... 700,000  
**Litigation Liability** ..... 700,000

(c) **No entry is necessary. The loss is not accrued because it is not probable that a liability has been incurred at 12/31/17.**

(d) (a) - **ASPE where Litigation Liability is likely:**

**Litigation Expense** ..... 700,000  
**Litigation Liability** ..... 700,000

(b) - **ASPE where Litigation Liability is not likely:**

**No entry is necessary. The loss is not accrued because it is not likely that a liability has been incurred at 12/31/17.**

**BRIEF EXERCISE 13-31**

- (a) Under IFRS, Siddle should record a loss since it is probable that a liability has been incurred, and the amount is reliably measurable. The amount should be measured at the probability-weighted expected value of the loss. Assuming that a payout of \$100,000 and a payout of \$250,000 are equally probable, a loss in the amount of \$175,000 is recorded.

Litigation Expense .....	175,000	
Litigation Liability .....		175,000

- (b) Under ASPE, Siddle should record a loss since it is likely that a liability has been incurred, and the amount can be reasonably estimated. The amount should be measured at the best estimate in the range of possible outcomes. If no particular estimate is better than another, the bottom of the range is recognized, and the amount of the remaining exposure to possible loss is disclosed in the notes. Assuming that a payout of \$100,000 and a payout of \$250,000 are equally likely, a loss in the amount of \$100,000 is recorded, and the remaining exposure of \$150,000 is disclosed in the notes.

Litigation Expense .....	100,000	
Litigation Liability .....		100,000

**BRIEF EXERCISE 13-32**

<u>Ratio</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Current Ratio	2.17	2.11	2.00
Quick Ratio	0.54	0.59	0.66
Days Payables Outstanding	39.54	34.98	N/A

**Current Ratio = Current Assets / Current Liabilities**

$$2019: \$8,250 / \$3,800 = 2.17$$

$$2018: \$7,800 / \$3,700 = 2.11$$

$$2017: \$7,300 / \$3,650 = 2.00$$

**Quick Ratio = Quick Assets / Current Liabilities**

$$2019: (\$650 + \$500 + \$900) / \$3,800 = 0.54$$

$$2018: (\$700 + \$500 + \$1,000) / \$3,700 = 0.59$$

$$2017: (\$600 + \$500 + \$1,300) / \$3,650 = 0.66$$

**Days Payables Outstanding**

$$= \frac{\text{Average Trade Accounts Payable}}{\text{Average Daily Cost of Goods Sold}}$$

$$2019: \frac{(\$1,550 + \$1,700) / 2}{(\$15,000 / 365)} = 39.54$$

$$2018: \frac{(\$1,700 + \$1,750) / 2}{(\$18,000 / 365)} = 34.98$$

The company shows a positive trend in the current ratio. However, the quick ratio shows deterioration in the quality of the current assets. The two ratios combined show that the increasing liquidity in the current ratio is created from less liquid assets such as inventory and prepaid expenses.

The days payables outstanding ratio shows an increasing time period for the company to pay off its current liabilities from approximately 35 days in 2018 to almost 40 days in 2019. If the company's creditors normally have credit terms of 30 days, this shows a disturbing trend, especially when combined with the deterioration in the quick ratio.

## **SOLUTIONS TO EXERCISES**

### **EXERCISE 13-1 (10-15 minutes)**

- (a) Classifications on balance sheet prepared under ASPE:**
- 1. Current liability; financial liability.**
  - 2. Current asset.**
  - 3. Current liability or long-term liability depending on term of warranty; not a financial liability.**
  - 4. Current liability; financial liability. A company would have an obligation to pay cash to the bank for any overdraft and this would result from the contractual agreement with the bank.**
  - 5. Current liability; not a financial liability if this refers to legal obligations for income tax withholdings, CPP and EI. This is a financial liability if it refers to other withholdings of a contractual nature with employees (union dues, for example).**
  - 6. Current liability; financial liability.**
  - 7. Current or noncurrent liability depending upon the time involved; not a financial liability (if deposit will be returned then it would be a financial liability).**
  - 8. Current liability; not a financial liability; this is a legal obligation.**
  - 9. Current liability; not a financial liability.**
  - 10. Current liability; not a financial liability.**
  - 11. Current liability; financial liability.**
  - 12. Current asset.**
  - 13. Current liability; financial liability.**
  - 14. Current liability; financial liability.**
  - 15. Note disclosure; not a financial liability. Dividends in arrears have not been declared – so it cannot be a financial liability. It becomes a financial liability only when declared by the company. The contractual arrangement between a company and its preferred shareholders is that they are entitled to a dividend every year before the common get any distributions, but they must be declared before they become a liability.**

**EXERCISE 13-1 (CONTINUED)**

- 16. Separate presentation in either current or long-term liability section; financial liability.**
  - 17. Current liability; not a financial liability; this is a legal obligation.**
  - 18. Current or noncurrent liability depending upon the time involved; not a financial liability; this is a legal or constructive obligation.**
  - 19. Current liability; financial liability.**
- (b) There would be no changes if the statement of financial position was prepared under IFRS.**

**EXERCISE 13-2 (10-15 minutes)**

<b>(a)</b>	<b>Sept. 1</b>	<b>Purchases</b> .....	<b>50,000</b>	
		<b>    Accounts Payable</b> .....		<b>50,000</b>
	<b>Oct. 1</b>	<b>Accounts Payable</b> .....	<b>50,000</b>	
		<b>    Notes Payable</b> .....		<b>50,000</b>
	<b>Oct. 1</b>	<b>Cash</b> .....	<b>75,000</b>	
		<b>    Notes Payable</b> .....		<b>75,000</b>
<b>(b)</b>	<b>Dec. 31</b>	<b>Interest Expense</b> .....	<b>1,000</b>	
		<b>    Interest Payable</b> .....		<b>1,000</b>
		<b>        (\$50,000 X 8% X 3/12)</b>		
	<b>Dec. 31</b>	<b>Interest Expense</b> .....	<b>1,500</b>	
		<b>    Notes Payable</b> .....		<b>1,500</b>
		<b>        [(81,000 – 75,000) X 3/12]</b>		
<b>(c)</b>	<b>(1)</b>	<b>Note payable</b>	<b>\$50,000</b>	
		<b>Interest payable</b>	<u><b>1,000</b></u>	
			<u><b>\$51,000</b></u>	
	<b>(2)</b>	<b>Note payable at issuance</b>	<b>\$75,000</b>	
		<b>Interest accrued</b>	<u><b>1,500</b></u>	
		<b>Note payable balance</b>	<u><b>\$76,500</b></u>	

**EXERCISE 13-3 (15-20 minutes)**

(a)	Oct. 1/18	Interest Expense * .....	3,000	
		Interest Payable .....	1,000	
		Notes Payable .....	50,000	
		Cash .....		54,000
		*(\$50,000 X 8% X 9/12)		
	Oct. 1/18	Interest Expense .....	4,500	
		Notes Payable.....		4,500
		[((\$81,000 – \$75,000) X 9/12]		
		Notes Payable .....	81,000	
		Cash .....		81,000
(b)	Jan. 1	<u>Orion Note:</u>		
		Interest Payable .....	1,000	
		Interest Expense .....		1,000
	Oct. 1	Interest Expense .....	4,000	
		Notes Payable .....	50,000	
		Cash .....		54,000

**Bank Note:** The use of reversing entries is more efficient for the interest-bearing note. In this case, the bookkeeping staff will debit interest expense for the full 12 months when the note is paid and, in combination with the reversing entry, the expense in 2018 will be correct. With the non-interest bearing note, there is no need to reverse the interest. When the note is paid at maturity, the difference between the note’s carrying amount and the amount paid is all charged – correctly – to interest expense.



**EXERCISE 13-3 (Continued)****(b) (continued)**

	<b><u>If reversing entry used:</u></b>		
Jan. 1	Notes Payable .....	1,500	
	Interest Expense .....		1,500
Oct. 1	Interest Expense .....	6,000	
	Note Payable .....		6,000
	Notes Payable .....	81,000	
	Cash.....		81,000
	<b><u>If reversing entry not used:</u></b>		
Oct. 1	Interest Expense .....	4,500	
	Note Payable .....		4,500
	Notes Payable .....	81,000	
	Cash .....		81,000

**EXERCISE 13-4 (15-20 minutes)**

<b>(a)</b>	Cash .....	<b>894,000</b>	
	Returnable Deposits .....		<b>894,000</b>
	Returnable Deposits .....	<b>705,400</b>	
	Cash .....		<b>705,400</b>
	Returnable Deposits .....	<b>55,000</b>	
	Container Sales Revenue .....		<b>55,000</b>
	(\$170,000 – \$115,000)		

<b>(b)</b>		<u><b>Returnable Deposits</b></u>	
		<b>\$650,000</b>	12/31/16 liability
		<b>894,000</b>	2017 deliveries
	2017 returns	<b>\$705,400</b>	
	2015 expired deposits	<u><b>55,000</b></u>	
		<u><b>(760,400)</b></u>	
		<u><b>\$783,600</b></u>	12/31/17 liability

**(c) The classification of this liability as current or long-term depends upon the length of the company’s operating cycle. If the company’s operating cycle is one year or less, then the portion of the liability that is expected to be settled within one year is classified as current. The remaining deposits would be classified as long-term. If the company’s operating cycle is between one year and two years, the portion of the liability that is expected to be settled within one operating cycle is classified as current. If the company’s operating cycle is two years or more, the entire liability (\$783,600) is classified as current.**

**(d) There would be no changes if the statement of financial position was prepared under ASPE.**

**EXERCISE 13-5 (25-35 minutes)****(a) Province of Ontario**

<b>March 1</b>	<b>Rent Expense .....</b>	<b>5,500</b>	
	<b>HST Receivable (\$5,500 X 13%).....</b>	<b>715</b>	
	<b>Cash .....</b>		<b>6,215</b>
<b>3</b>	<b>Accounts Receivable—Marcus .....</b>	<b>22,600</b>	
	<b>Sales Revenue .....</b>		<b>20,000</b>
	<b>HST Payable (\$20,000 X 13%) ...</b>		<b>2,600</b>
	<b>Cost of Goods Sold.....</b>	<b>11,000</b>	
	<b>Inventory .....</b>		<b>11,000</b>
<b>5</b>	<b>Sales Returns and Allowances .....</b>	<b>500</b>	
	<b>HST Payable (\$500 X 13%).....</b>	<b>65</b>	
	<b>Accounts Receivable—Marcus</b>		<b>565</b>
<b>7</b>	<b>Inventory .....</b>	<b>4,000</b>	
	<b>HST Receivable (\$4,000 X 13%).....</b>	<b>520</b>	
	<b>Accounts Payable—Tinney .....</b>		<b>4,520</b>
<b>12</b>	<b>Furniture and Fixtures .....</b>	<b>600</b>	
	<b>HST Receivable (\$600 X 13%).....</b>	<b>78</b>	
	<b>Cash .....</b>		<b>678</b>
<b>Apr. 15</b>	<b>HST Payable (\$2,600 – \$65) .....</b>	<b>2,535</b>	
	<b>Cash .....</b>		<b>1,222</b>
	<b>HST Receivable .....</b>		<b>1,313</b>
	<b>(\$715 + \$520 + \$78)</b>		

**EXERCISE 13-5 (CONTINUED)****(b) Province of Alberta**

<b>March 1</b>	<b>Rent Expense .....</b>	<b>5,500</b>	
	<b>GST Receivable (\$5,500 X 5%) .....</b>	<b>275</b>	
	<b>Cash.....</b>		<b>5,775</b>
<b>3</b>	<b>Accounts Receivable—Marcus .....</b>	<b>21,000</b>	
	<b>Sales Revenue .....</b>		<b>20,000</b>
	<b>GST Payable (\$20,000 X 5%) .....</b>		<b>1,000</b>
	<b>Cost of Goods Sold.....</b>	<b>11,000</b>	
	<b>Inventory .....</b>		<b>11,000</b>
<b>5</b>	<b>Sales Returns and Allowances .....</b>	<b>500</b>	
	<b>GST Payable (\$500 X 5%) .....</b>	<b>25</b>	
	<b>Accounts Receivable—Marcus..</b>		<b>525</b>
<b>7</b>	<b>Inventory.....</b>	<b>4,000</b>	
	<b>GST Receivable (\$4,000 X 5%) .....</b>	<b>200</b>	
	<b>Accounts Payable—Tinney.....</b>		<b>4,200</b>
<b>12</b>	<b>Furniture and Fixtures .....</b>	<b>600</b>	
	<b>GST Receivable (\$600 X 5%) .....</b>	<b>30</b>	
	<b>Cash.....</b>		<b>630</b>
<b>Apr. 15</b>	<b>GST Payable (\$1,000 – \$25).....</b>	<b>975</b>	
	<b>Cash.....</b>		<b>470</b>
	<b>GST Receivable</b>		
	<b>(\$275 + \$200 + \$30) .....</b>		<b>505</b>

**EXERCISE 13-5 (CONTINUED)**

(c)

<b>March 1</b>	<b>Rent Expense .....</b>	<b>5,500</b>	
	<b>GST Receivable (\$5,500 X 5%) .....</b>	<b>275</b>	
	<b>Cash.....</b>		<b>5,775</b>
<b>3</b>	<b>Accounts Receivable—Marcus .....</b>	<b>23,100</b>	
	<b>Sales Revenue .....</b>		<b>20,000</b>
	<b>GST Payable (\$20,000 X 5%) .....</b>		<b>1,000</b>
	<b>PST Payable .....</b>		<b>2,100</b>
	<b>[((\$20,000 X 1.05) X 10%)]</b>		
	<b>Cost of Goods Sold .....</b>	<b>11,000</b>	
	<b>Inventory .....</b>		<b>11,000</b>
<b>5</b>	<b>Sales Returns and Allowances .....</b>	<b>500</b>	
	<b>GST Payable (\$500 X 5%) .....</b>	<b>25</b>	
	<b>PST Payable [(\$500 X 1.05) X 10%] .....</b>	<b>53</b>	
	<b>Accounts Receivable—Marcus</b>		<b>578</b>
<b>7</b>	<b>Inventory.....</b>	<b>4,000</b>	
	<b>GST Receivable (\$4,000 X 5%) .....</b>	<b>200</b>	
	<b>Accounts Payable—Tinney .....</b>		<b>4,200</b>
<b>12</b>	<b>Furniture and Fixtures (\$600 + \$63*) ..</b>	<b>663</b>	
	<b>GST Receivable (\$600 X 5%) .....</b>	<b>30</b>	
	<b>Cash.....</b>		<b>693</b>
	<b>* (\$600 X 1.05) X 10% = \$63</b>		
<b>Apr. 15</b>	<b>GST Payable (\$1,000 – \$25).....</b>	<b>975</b>	
	<b>Cash .....</b>		<b>470</b>
	<b>GST Receivable</b>		
	<b>(\$275 + \$200 + \$30) .....</b>		<b>505</b>
<b>30</b>	<b>PST Payable.....</b>	<b>2,047</b>	
	<b>Cash (\$2,100 - \$53) .....</b>		<b>2,047</b>

**EXERCISE 13-6 (15-20 minutes)**

(a)	Mar. 31	Income Tax Expense.....	8,100	
		Cash .....		8,100
	June 1	Cash .....	11,250	
		Income Tax Receivable.....		11,250
	June 30	Income Tax Expense.....	8,100	
		Cash .....		8,100
	Sep. 30	Income Tax Expense.....	8,100	
		Cash .....		8,100
	Dec. 31	Income Tax Expense.....	8,100	
		Cash .....		8,100
	Dec. 31	Income Tax Expense.....	5,400	
		Income Tax Payable.....		5,400
		Estimated income tax	\$37,800	
		Income tax instalments paid		
		(\$8,100 X 4)	<u>(32,400)</u>	
		Income tax payable		<u>\$ 5,400</u>

(b) The income tax payable will be shown as a current liability.

(c)	June 1	Cash .....	2,750	
		Retained Earnings .....	8,500	
		Income Tax Receivable .....		11,250

The error relates to a prior period and should be treated as an adjustment to opening retained earnings on the statement of retained earnings or statement of changes in equity. No tax effect would be applicable for this correction of error.

(d) None of the answers to (a) to (c) would have changed under ASPE.

**EXERCISE 13-7 (30-35 minutes)****(a)**

<b>#</b>	<b>Assets</b>	<b>Liabilities</b>	<b>Shareholders' Equity</b>	<b>Net Income</b>
<b>1</b>	<b>I</b>	<b>I</b>	<b>NE</b>	<b>NE</b>
<b>2</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>
<b>3</b>	<b>NE</b>	<b>I</b>	<b>D</b>	<b>D</b>
<b>4</b>	<b>I</b>	<b>I</b>	<b>NE</b>	<b>NE</b>
<b>5</b>	<b>NE</b>	<b>I</b>	<b>D</b>	<b>D</b>
<b>6</b>	<b>I</b>	<b>I</b>	<b>I</b>	<b>I</b>
<b>7</b>	<b>D</b>	<b>I</b>	<b>D</b>	<b>D</b>
<b>8</b>	<b>NE</b>	<b>I</b>	<b>D</b>	<b>D</b>
<b>9</b>	<b>NE</b>	<b>I</b>	<b>D</b>	<b>D</b>
<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>
<b>11</b>	<b>NE</b>	<b>I</b>	<b>D</b>	<b>D</b>
<b>12</b>	<b>NE</b>	<b>I</b>	<b>D</b>	<b>D</b>
<b>13</b>	<b>NE</b>	<b>I</b>	<b>D</b>	<b>D</b>
<b>14</b>	<b>D</b>	<b>D</b>	<b>NE</b>	<b>NE</b>
<b>15</b>	<b>I</b>	<b>I</b>	<b>I</b>	<b>I</b>
<b>16</b>	<b>D</b>	<b>NE</b>	<b>D</b>	<b>D</b>
<b>17</b>	<b>NE</b>	<b>D</b>	<b>I</b>	<b>I</b>
<b>18</b>	<b>NE</b>	<b>I</b>	<b>D</b>	<b>D</b>
<b>19</b>	<b>I</b>	<b>I</b>	<b>NE</b>	<b>NE</b>
<b>20</b>	<b>I</b>	<b>D</b>	<b>I</b>	<b>I</b>

**EXERCISE 13-7 (CONTINUED)**

**(b) Under IFRS, addition considerations should be applied to the following items:**

**Item No.**

**12** The criteria for the recording a contingent loss under ASPE need only be “likely”, meaning a high probability, whereas for IFRS the threshold for recognition is lower at “probable”.

**13 and 15** ASPE requires companies to apply recognition criteria separately when the selling price includes an identifiable amount for subsequent servicing. Under IFRS 15 warranties are considered either Assurance-type or Service-type



**EXERCISE 13-8 (20-25 minutes)****(a)**

**Hornsby Corporation  
Partial Balance Sheet  
December 31, 2017**

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**Current liabilities:**

Notes payable (Note 1)	\$250,000
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**Long-term debt:**

Notes payable refinanced in February 2018 (Note 1)	950,000
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**Note 1: Short-term debt refinanced**

As of December 31, 2017, the company had notes payable totalling \$1,200,000 due on February 2, 2018. These notes were refinanced on their due date to the extent of \$950,000 received from the issuance of common shares on January 21, 2018. The balance of \$250,000 was liquidated using current assets.

**OR****Current liabilities:**

Notes payable (Note 1)	\$250,000
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**Long-term debt:**

Short-term debt expected to be refinanced (Note 1)	950,000
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**(Same Note as above.)**

**EXERCISE 13-8 (CONTINUED)**

- (b) Under IFRS, since the debt is due within 12 months from the reporting date, the whole amount (\$1.2 million) is classified as a current liability. This classification holds even if a long-term refinancing has been completed before the financial statements are released. The only exception for continuing long-term classification is if, at the balance sheet date, the entity expects to refinance it or roll it over under an existing agreement for at least 12 months and the decision is solely at its discretion. The international standard has a stringent requirement that the agreement must be firm at the balance sheet date.
- (c) The current ratio is calculated as current assets/current liabilities. If Hornsby follows ASPE, current liabilities would include \$250,000 related to the short-term notes payable. If Hornsby follows IFRS, current liabilities would include \$1.2 million related to the short-term notes payable. Therefore, the current ratio would appear higher if Hornsby follows ASPE. A creditor would want to assess the company's liquidity and solvency, and should be aware that classification of the short-term notes payable on the balance sheet has a significant impact on key ratios including the current ratio. The creditor should refer to all information in the financial statements, including notes to the financial statements, to determine the financial position of the company, especially when comparing the company's performance to that of another company with financial statements prepared under a different standard.

**EXERCISE 13-9 (10-15 minutes)****Zimmer Corporation  
Partial Balance Sheet  
December 31, 2017****Current liabilities:**

Notes payable (Note 1)	<b>\$4,480,000</b>
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**Long-term debt:**

Notes payable expected to be refinanced in 2018 (Note 1)	<b>3,420,000</b>
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**Note 1.**

Under a financing agreement with Provincial Bank, the company may borrow up to 60% of the gross amount of its accounts receivable at an interest cost of 1% above the prime rate. The company intends to issue notes maturing in 2019 to replace \$3,420,000 of short-term, 15%, notes due periodically in 2018. Because the amount that can be borrowed may range from \$3,420,000\* to \$4,200,000\*\*, only \$3,420,000 of the \$7,900,000 of currently maturing debt has been reclassified as long-term debt.

**Expected range of receivables:**

\*low in May:  $\$5,700,000 \times 60\% = \$3,420,000$

\*\*high in October:  $\$7,000,000 \times 60\% = \$4,200,000$

- (b) Under IFRS, since the debt is due within 12 months from the reporting date, the whole amount (\$7.9 million) is classified as a current liability. This classification holds even if a long-term refinancing has been completed before the financial statements are released. The only exception accepted for continuing long-term classification is if, at the balance sheet date, the entity expects to refinance it or roll it over under an existing agreement for at least 12 months and the decision is solely at its discretion. The international standard has a stringent requirement that the agreement must be firm at the balance sheet date.

**EXERCISE 13-10 (15-20 minutes)**

<b>(a) Salaries and Wages Expense .....</b>	<b>485,182</b>	
<b>Employee Income Tax Deductions Payable.....</b>		<b>85,000</b>
<b>EI Premiums Payable*.....</b>		<b>6,862</b>
<b>CPP Contributions Payable** .....</b>		<b>18,068</b>
<b>Union Dues Payable .....</b>		<b>8,000</b>
<b>Cash .....</b>		<b>367,252</b>
* <b>\$365,000 X 1.88% = \$6,862</b>		
** <b>\$365,000 X 4.95% = \$18,068</b>		

<b>Payroll Tax Expense .....</b>	<b>27,675</b>	
<b>EI Premiums Payable .....</b>		<b>9,607</b>
<b>\$365,000 X 2.562%</b>		
<b>CPP Contributions Payable .....</b>		<b>18,068</b>
<b>(See previous calculation)</b>		

<b>(b) Employee Income Tax Deductions Payable .....</b>	<b>85,000</b>	
<b>EI Premiums Payable (\$6,862 + \$9,607)....</b>	<b>16,469</b>	
<b>CPP Contributions Payable .....</b>	<b>36,136</b>	
<b>(\$18,068 + \$18,068)</b>		
<b>Cash .....</b>		<b>137,605</b>
<b>Union Dues Payable.....</b>	<b>8,000</b>	
<b>Cash .....</b>		<b>8,000</b>

<b>(c) Salaries and wages for September 2017</b>	<b>\$485,000</b>
<b>Payroll tax expense</b>	<b>27,675</b>
<b>Total payroll cost for September 2017</b>	<b><u>\$512,675</u></b>
<b>Cost per dollar of salaries and wages = (\$512,675 ÷ \$485,000) = \$1.057</b>	

**(d) The company may have additional employee-related costs such as Workplace Safety and Insurance Board (WSIB) coverage, health taxes, life, health and disability insurance, pension benefits, compensated absences (paid vacation, maternity/paternity leave, sick pay) and indirect costs such as a human resources department.**

**EXERCISE 13-11 (40-45 minutes)****(a) To accrue the expense and liability for vacation entitlement:**

<b>2016</b>	<b>Salaries and Wages Expense</b>	<b>14,400</b>	
	<b>Vacation Wages Payable</b>		<b>14,400(1)</b>
<b>2017</b>	<b>Salaries and Wages Expense</b>	<b>15,120</b>	
	<b>Vacation Wages Payable</b>		<b>15,120(2)</b>
	<b>Salaries and Wages Expense</b>	<b>648</b>	
	<b>Vacation Wages Payable</b>	<b>12,960(3)</b>	
	<b>Cash</b>		<b>13,608(4)</b>

(1) 9 employees X \$20.00/hr. X 8 hrs./day X 10 days = \$14,400

(2) 9 employees X \$21.00/hr. X 8 hrs./day X 10 days = \$15,120

(3) 9 employees X \$20.00/hr. X 8 hrs./day X 9 days = \$12,960

(4) 9 employees X \$21.00/hr. X 8 hrs./day X 9 days = \$13,608

**NOTE:** Vacation days are paid at the employee's current wage.

**(b) To accrue the expense and liability for sick days:**

<b>2016</b>	<b>Salaries and Wages Expense</b>	<b>8,640</b>	
	<b>Sick Pay Wages Payable</b>		<b>8,640(1)</b>

**To record payment for compensated time when used by employees:**

	<b>Sick Pay Wages Payable</b>	<b>5,760(2)</b>	
	<b>Cash</b>		<b>5,760</b>
<b>2017</b>	<b>Salaries and Wages Expense</b>	<b>9,072</b>	
	<b>Sick Pay Wages Payable</b>		<b>9,072 (3)</b>

**EXERCISE 13-11 (CONTINUED)****(b) (continued)**

<b>2017</b>	<b>Salaries and Wages Expense</b>	<b>144</b>	
	<b>Sick Pay Wages Payable</b>	<b>7,416(4)</b>	
	<b>Cash</b>		<b>7,560(5)</b>

<b>(1)</b>	<b>9 employees X \$20.00/hr. X 8 hrs./day X 6 days =</b>	<b><u>\$8,640</u></b>
<b>(2)</b>	<b>9 employees X \$20.00/hr. X 8 hrs./day X 4 days =</b>	<b><u>\$5,760</u></b>
<b>(3)</b>	<b>9 employees X \$21.00/hr. X 8 hrs./day X 6 days =</b>	<b><u>\$9,072</u></b>
<b>(4)</b>	<b>9 employees X \$20.00/hr. X 8 hrs./day X (6–4) days =</b>	<b><u>\$2,880</u></b>
	<b>9 employees X \$21.00/hr. X 8 hrs./day X (5–2) days = +</b>	<b><u>\$4,536</u></b>
		<b><u>\$7,416</u></b>
<b>(5)</b>	<b>9 employees X \$21.00/hr. X 8 hrs./day X 5 days =</b>	<b><u>\$7,560</u></b>

**NOTE: Sick days are paid at the employee's current wage.****(c) Accrued liability at year-end:**

	<b>2016</b>		<b>2017</b>	
	<b>Vacation Wages Payable</b>	<b>Sick Pay Wages Payable</b>	<b>Vacation Wages Payable</b>	<b>Sick Pay Wages Payable</b>
<b>Jan. 1 balance</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$14,400</b>	<b>\$2,880</b>
<b>+ accrued</b>	<b>14,400</b>	<b>8,640</b>	<b>15,120</b>	<b>9,072</b>
<b>– paid</b>	<b><u>( 0)</u></b>	<b><u>(5,760)</u></b>	<b><u>(12,960)</u></b>	<b><u>(7,416)</u></b>
<b>Dec. 31 balance</b>	<b><u>\$14,400(1)</u></b>	<b><u>\$2,880(2)</u></b>	<b><u>\$16,560(3)</u></b>	<b><u>\$4,536(4)</u></b>

<b>(1)</b>	<b>9 emp. X \$20.00/hr. X 8 hrs./day X 10 days =</b>	<b><u>\$14,400</u></b>
<b>(2)</b>	<b>9 emp. X \$20.00/hr. X 8 hrs./day X (6–4) days =</b>	<b><u>\$2,880</u></b>
<b>(3)</b>	<b>9 emp. X \$20.00/hr. X 8 hrs./day X (10–9) days =</b>	<b>\$ 1,440</b>
	<b>9 emp. X \$21.00/hr. X 8 hrs./day X 10 days =</b>	<b><u>+ 15,120</u></b>
		<b><u>\$16,560</u></b>
<b>(4)</b>	<b>9 emp. X \$21.00/hr. X 8 hrs./day X (6 + 6 – 4 – 5) days</b>	<b><u>\$4,536</u></b>

**EXERCISE 13-11 (CONTINUED)**

- (d) Since the sick days entitlement does not accumulate, the company would not accrue unused sick days. Unused sick days would expire. Paid sick days taken by employees during the year would be debited to Salaries and Wages Expense as taken at the wage rate in effect in that year.

To record payment for compensated time when used by employees:

---

2016	Salaries and Wages Expense	5,760(1)	
	Cash		5,760
2017	Salaries and Wages Expense	7,560	
	Cash		7,560 (2)

(1) 9 employees X \$20.00/hr. X 8 hrs./day X 4 days = \$5,760

(2) 9 employees X \$21.00/hr. X 8 hrs./day X 5 days = \$7,560

The accrued liability at year-end would be the same as part (c) for vacation wages payable, but no accrual would be required for sick days.

Vacation Wages Payable (2016) = \$14,400

Vacation Wages Payable (2017) = \$16,560

**EXERCISE 13-12 (25-30 minutes)****(a)**

<b>2016</b>	<b>To accrue the expense and liability for vacations:</b>		
	Salaries and Wages Expense	14,940	(1)
	Vacation Wages Payable		14,940

**To record vacation time paid:**

**No entry.**

<b>2017</b>	<b>To accrue the expense and liability for vacations:</b>		
	Salaries and Wages Expense	15,552	(2)
	Vacation Wages Payable		15,552

**To record vacation time paid:**

	Salaries and Wages Expense	162	
	Vacation Wages Payable	13,446	(3)
	Cash		13,608 (4)

- (1) 9 employees X \$20.75/hr. X 8 hrs./day X 10 days = \$19,940  
 (2) 9 employees X \$21.60/hr. X 8 hrs./day X 10 days = \$15,552  
 (3) 9 employees X \$20.75/hr. X 8 hrs./day X 9 days = \$13,446  
 (4) 9 employees X \$21.00/hr. X 8 hrs./day X 9 days = \$13,608

**(b)**

<b>2016</b>	<b>To record sick time paid:</b>		
	Salaries and Wages Expense	5,760	(1)
	Cash		5,760

<b>2017</b>	<b>To record sick time paid:</b>		
	Salaries and Wages Expense	7,560	(2)
	Cash		7,560

- (1) 9 employees X \$20.00/hr. X 8 hrs./day X 4 days = \$5,760  
 (2) 9 employees X \$21.00/hr. X 8 hrs./day X 5 days = \$7,560



**EXERCISE 13-12 (CONTINUED)****(c) Accrued liability at year-end (vacation pay only):**

	<u>2016</u>	<u>2017</u>
Jan. 1 balance	\$ 0	\$14,940
+ accrued	14,940	15,552
– paid	<u>( 0)</u>	<u>(13,446)</u>
Dec. 31 balance	<u>\$14,940(1)</u>	<u>\$17,046(2)</u>

- (1) 9 employees X \$20.75/hr. X 8 hrs./day X 10 days = \$14,940
- (2) 9 employees X \$20.75/hr. X 8 hrs./day X 1 day = \$ 1,494  
 9 employees X \$21.60/hr. X 8 hrs./day X 10 days = 15,552  
\$17,046

**EXERCISE 13-13 (20-25 minutes)**

**(a) October 29, 2017:**

<b>Employee Benefit Expense*</b> .....	<b>36,810</b>	
<b>    Parental Leave Benefits Payable</b> .....		<b>36,810</b>

The expense and liability are recognized when the event that obligates the entity occurs. For maternity and parental leave, the application for leave is the event that obligates the corporation. The notification in June is not considered an actual application for leave.

<b>* Salary for 12 months</b>	<b>\$54,000</b>
<b>Less: employment insurance</b>	
<b>payments (\$720/week X 52 weeks)</b>	<b>(37,440)</b>
<b>Salary for 6 months at 75%</b>	
<b>(\$54,000 X 6/12 X 75%)</b>	<b><u>20,250</u></b>
<b>Employee Benefit Expense</b>	<b><u>\$36,810</u></b>

For each of the 9 weeks from October 29, 2017 to December 31, 2017, Goldwing Corporation will pay Zeinab Jolan a top up amount and record the payments as follows:

<b>    Parental Leave Benefits Payable</b> .....	<b>318</b>	
<b>        Cash</b> .....		<b>318</b>
<b>    (\$54,000 – \$37,440) ÷ 52 weeks = \$318</b>		

<b>(b) Parental Leave Benefits Payable</b> .....	<b>20,708*</b>	
<b>    Cash</b> .....		<b>20,708</b>

<b>*Top up for one year (\$54,000 – \$37,440)</b>	<b>\$16,560</b>
<b>Less portion used in 2017 (9 weeks X \$318)</b>	<b>(2,862)</b>
<b>Remaining 9 weeks at 75% of full pay</b>	
<b>(\$20,250 X 9/26)</b>	<b><u>7,010</u></b>
<b>Benefits paid during 2018</b>	<b><u>\$20,708</u></b>

**EXERCISE 13-13 (CONTINUED)**

**(c) Parental Leave Benefits Payable at December 31, 2017 =  
\$36,810 – (9 weeks X \$318) = \$33,948**

**Parental Leave Benefits Payable at December 31, 2018 =  
\$33,948 – \$20,708 = \$13,240**

**The parental leave benefits payable balance at December 31, 2017 will have both a current and long-term portion. The amount payable within the coming year, \$20,708, will be shown as a current liability, whereas the remaining \$13,240, which will be payable in 2019, will be shown as a long-term liability.**

**On the December 31, 2018 balance sheet, the remaining amount of \$13,240 will be shown as a current liability.**

**EXERCISE 13-14 (15-20 minutes)**

(a)

**Justin Corp.**  
**Income Statement**  
**For the Year Ended December 31, 2017**

<b>Sales revenue</b>		<b>\$10,000,000</b>
<b>Cost of goods sold</b>		<u><b>7,000,000</b></u>
<b>Gross profit</b>		<b>3,000,000</b>
<b>Administrative and selling expenses</b>	<b>\$1,000,000</b>	
<b>Profit-sharing bonus to employees</b>	<u><b>245,614</b></u>	<u><b>1,245,614</b></u>
<b>Income before income tax</b>		<b>1,754,386</b>
<b>Income tax (30%)</b>		<u><b>526,316</b></u>
<b>Net income</b>		<u><b>\$ 1,228,070</b></u>

**Calculation of bonus and tax:**

$$\begin{aligned}
 T &= .30 (\$3,000,000 - \$1,000,000 - B) \\
 B &= .20 (\$2,000,000 - B - T) \\
 B &= .20 [\$2,000,000 - B - .30 (\$2,000,000 - B)] \\
 B &= .20 (\$2,000,000 - B - \$600,000 + .30B) \\
 B &= .20 (\$1,400,000 - .70B) \\
 B &= \$280,000 - .14B \\
 1.14B &= \$280,000 \\
 \text{Bonus} &= \$245,614.04 \\
 T &= .30 (\$2,000,000 - \$245,614.04) \\
 T &= .30 (\$1,754,385.96) \\
 \text{Tax} &= \$526,315.79
 \end{aligned}$$

(b) **Bonus Expense**..... **245,614**  
**Bonus Payable** ..... **245,614**

(c) **The calculation of the bonus would not have changed had Janus followed IFRS.**

**EXERCISE 13-15 (30-35 minutes)**

<b>(a)</b>	<b>January 1, 2017</b>		
<b>Drilling Platform</b>		<b>5,460,000</b>	
<b>Cash</b>			<b>5,460,000</b>
<b>Drilling Platform</b>		<b>419,063</b>	
<b>Asset Retirement Obligation</b>			<b>419,063</b>
<b>(PV of \$950,000 using <math>i=8%</math> and <math>n=6</math>) X 70%</b>			
<b>\$950,000 X .63017 X 70%</b>			
<b>(b)</b>	<b>December 31, 2017</b>		
<b>Depreciation Expense</b>		<b>979,844</b>	
<b>Accumulated Depreciation –</b>			
<b>Drilling Platform</b>			<b>979,844</b>
<b><math>(\\$5,460,000 + \\$419,063) \div 6</math></b>			
<b>Interest Expense</b>		<b>33,525</b>	
<b>Asset Retirement Obligation</b>			<b>33,525</b>
<b><math>\\$419,063 \times 8%</math></b>			
<b>Inventory</b>		<b>32,328</b>	
<b>Asset Retirement Obligation</b>			<b>32,328</b>
<b>(c)</b>	<b>December 31, 2018</b>		
<b>Depreciation Expense</b>		<b>979,844</b>	
<b>Accumulated Depreciation –</b>			
<b>Drilling Platform</b>			<b>979,844</b>
<b><math>(\\$5,460,000 + \\$419,063) \div 6</math></b>			
<b>Interest Expense</b>		<b>38,793</b>	
<b>Asset Retirement Obligation</b>			<b>38,793</b>
<b><math>(\\$419,063 + \\$33,525 + \\$32,328) \times 8%</math></b>			
<b>Inventory</b>		<b>34,914</b>	
<b>Asset Retirement Obligation</b>			<b>34,914</b>

**EXERCISE 13-15 (CONTINUED)**

<b>(d)</b>	<b>December 31, 2022</b>		
<b>Asset Retirement Obligation</b>		<b>950,000</b>	
<b>Gain on Settlement of ARO</b>			<b>28,000</b>
<b>Cash</b>			<b>922,000</b>

<b>(e)</b>	<b>January 1, 2017</b>		
<b>Drilling Platform</b>		<b>5,460,000</b>	
<b>Cash</b>			<b>5,460,000</b>

<b>Drilling Platform</b>		<b>419,063</b>	
<b>Asset Retirement Obligation</b>			<b>419,063</b>
<b>(PV of \$950,000 using <math>i=8%</math> and <math>n=6</math>) X 70%</b>			
<b>\$950,000 X .63017 X 70%</b>			

	<b>December 31, 2017</b>		
<b>Depreciation Expense</b>		<b>979,844</b>	
<b>Accumulated Depreciation – Drilling Platform</b>			<b>979,844</b>
<b><math>(\\$5,460,000 + \\$419,063) \div 6</math></b>			

<b>Accretion Expense</b>		<b>33,525</b>	
<b>Asset Retirement Obligation</b>			<b>33,525</b>
<b><math>\\$419,063 \times 8%</math></b>			

<b>Drilling Platform</b>		<b>32,328</b>	
<b>Asset Retirement Obligation</b>			<b>32,328</b>

	<b>December 31, 2018</b>		
<b>Depreciation Expense</b>		<b>986,310</b>	
<b>Accumulated Depreciation – Drilling Platform</b>			<b>986,310</b>
<b><math>(\\$5,460,000 + \\$419,063) \div 6 + \\$32,328 \div 5</math></b>			

<b>Accretion Expense</b>		<b>38,793</b>	
<b>Asset Retirement Obligation</b>			<b>38,793</b>
<b><math>(\\$419,063 + \\$33,525 + \\$32,328) \times 8%</math></b>			

**EXERCISE 13-15 (CONTINUED)****(e) (continued)**

<b>Drilling Platform</b>	<b>34,914</b>	
<b>    Asset Retirement Obligation</b>		<b>34,914</b>
	<b>December 31, 2022</b>	
<b>Asset Retirement Obligation</b>	<b>950,000</b>	
<b>    Gain on Settlement of ARO</b>		<b>28,000</b>
<b>    Cash</b>		<b>922,000</b>

**EXERCISE 13-16 (40-50 minutes)****(a)**

**Present value of the asset retirement obligation**  
**= \$75,000 X .55839 = \$41,879**

**Using a financial calculator:**

<b>PV</b>	<b>?</b>	<b>Yields \$ 41,879.61</b>
<b>I</b>	<b>6%</b>	
<b>N</b>	<b>10</b>	
<b>PMT</b>	<b>0</b>	
<b>FV</b>	<b>\$ (75,000)</b>	
<b>Type</b>	<b>0</b>	

**July 2, 2017**

<b>Oil Tanker Depot</b>	<b>600,000</b>	
<b>Cash</b>		<b>600,000</b>
<b>Oil Tanker Depot</b>	<b>41,879</b>	
<b>Asset Retirement Obligation</b>		<b>41,879</b>

**(b) December 31, 2017**

<b>Depreciation Expense</b>	<b>32,094</b>	
<b>Accumulated Depreciation –</b>		
<b>Oil Tanker Depot</b>		<b>32,094</b>
<b>(\$600,000 + \$41,879) ÷ 10 X 6/12</b>		

<b>Accretion Expense</b>	<b>1,256</b>	
<b>Asset Retirement Obligation</b>		<b>1,256</b>
<b>(\$41,879 X 6% X 6/12)</b>		



**EXERCISE 13-16 (CONTINUED)**

**(c) Balance Sheet:**

**Property, Plant, and Equipment:**

<b>Oil Tanker Depot</b>	<b>\$641,879</b>
<b>Less: Accumulated Depreciation</b>	<b><u>32,094</u> \$609,785</b>

**Long-term Liabilities:**

<b>Asset Retirement Obligation</b>	<b>43,135</b>
<b>(\$41,879 + \$1,256)</b>	

**Income Statement:**

**Operating Expenses**

<b>Depreciation Expense</b>	<b>32,094</b>
<b>Accretion Expense</b>	<b>1,256</b>

**(d)**

<b>Year</b>	<b>Beg. Carrying Amount</b>	<b>Accretion Expense (6%)</b>	<b>Ending Carrying Amount</b>
<b>June 30, 2018</b>	<b>41,879.00</b>	<b>2,512.74</b>	<b>44,391.74</b>
<b>2019</b>	<b>44,391.74</b>	<b>2,663.50</b>	<b>47,055.24</b>
<b>2020</b>	<b>47,055.24</b>	<b>2,823.31</b>	<b>49,878.55</b>
<b>2021</b>	<b>49,878.55</b>	<b>2,992.71</b>	<b>52,871.26</b>
<b>2022</b>	<b>52,871.26</b>	<b>3,172.28</b>	<b>56,043.55</b>
<b>2023</b>	<b>56,043.54</b>	<b>3,362.61</b>	<b>59,406.15</b>
<b>2024</b>	<b>59,406.15</b>	<b>3,564.37</b>	<b>62,970.52</b>
<b>2025</b>	<b>62,970.52</b>	<b>3,778.23</b>	<b>66,748.75</b>
<b>2026</b>	<b>66,748.75</b>	<b>4,004.93</b>	<b>70,753.68</b>
<b>2027</b>	<b>70,753.68</b>	<b>4,245.22</b>	<b>74,998.90</b>

**(e)**

**June 30, 2027**

<b>Asset Retirement Obligation</b>	<b>75,000</b>	
<b>Loss on Settlement of ARO</b>	<b>5,000</b>	
<b>Cash</b>		<b>80,000</b>

**EXERCISE 13-16 (CONTINUED)**

- (f) The accretion expense is a non-cash expense. It would be omitted from cash from operations in the statement of cash flows prepared using the direct method. It would be added back to net income in the statement of cash flows prepared using the indirect method.
- (g) If the company reports under IFRS, the main differences in accounting for the asset retirement costs and obligation are as follows:
1. If there are any constructive obligations related to retiring the oil tanker depot, the related costs would be included in the asset retirement obligation (ARO), in addition to the legal obligations recognized in part (a). Whereas under ASPE, only the costs associated with legal obligations are included in the ARO.
  2. The costs included in the capital asset would only be those retirement obligations related to the acquisition of the asset, not those retirement obligations related to the subsequent production of goods or services. Under IFRS, retirement costs related to the subsequent production of goods or services are included as inventory or product costs as the depot is used and the retirement costs increase due to production. Whereas under ASPE, the costs included in the capital asset are the retirement obligations resulting from both the acquisition of the asset and its subsequent use in producing inventory.
  3. The interest adjustment to the liability account recorded in part (b) would be recognized as a borrowing cost in the interest expense account. Whereas under ASPE, the interest adjustment is recognized as an operating expense in the accretion expense account.

**As an example, assuming that Crude Oil follows IFRS and that the ARO of \$75,000 at the end of the depot's useful life relates 50% to acquisition of the depot and 50% to the subsequent production:**

**EXERCISE 13-16 (CONTINUED)****(g) (continued)**

- The July 2, 2014 entry to acquire the oil tanker depot would be the same as under ASPE.
- Instead of capitalizing the full \$41,879 in the Oil Tanker Depot account, only  $\frac{1}{2} \times \$41,879$  or \$20,940 would be capitalized at July 2, 2017.
- The depreciation expense for the six months ended December 31, 2017 would be  $(\$600,000 + \$20,940) \div 10 \times 6/12 = \$31,047$
- Interest expense (which would be accretion expense under ASPE as discussed above) for the 6 months ended December 31, 2017 would be lower than under ASPE. It would be  $\$20,940 \times 6\% \times 6/12 = \$628$ .
- An entry would have to be made to recognize the increased ARO due to the production activities for the 6 months ended December 31, 2017, with the costs charged to Inventory. This would be measured at the present value of the incremental costs caused by this production. If \$37,500 of the remediation obligation (ARO) was caused by the acquisition of the asset, then the other \$37,500 of the ARO, or \$1,875 every six months, would be caused by production. At the end of December 2017, \$1,078 is the present value of the incremental cost caused by production (PV \$1,875 using  $i=6\%$  and  $n=9.5$  periods which gives a PV factor of .57490). On June 30, 2018, an additional \$1,110 would be recognized as production costs and an increase in the ARO (PV \$1,875 using  $i=6\%$  and  $n=9$  periods which gives a PV factor of .59190). At June 30, 2018, additional interest expense would be recognized as well because \$1,078 has been included in the ARO since December 31, 2017. However, only \$1,078 is charged to Inventory and credited to the Asset Retirement Obligation at December 31, 2017.
- At June 30, 2027, the ARO will have accumulated to \$75,000, the same as under ASPE. Therefore, the same entry would be made to recognize the \$80,000 expenditure for remediation and the \$5,000 loss.

**EXERCISE 13-16 (CONTINUED)**  
**(g) (continued)**

**Note to instructor:** This may be more detail than you would like to get into with your students, but is provided here as one way to calculate reasonable numbers for the entries. The following table sets out a “proof” that the ARO related to production activity and interest for the first year’s production will accumulate to 1/10 of the estimated retirement costs at the end of 10 years or \$3,750.

For each period, the ARO relating to the current production is recorded at its present value at the end of the period of production, added to the same liability account for the ARO recognized for the asset acquisition, and then accreted until the obligation is eventually retired.

There is no amount in the ARO account related to inventory production until December 31, 2017, so no accretion is needed in that first period.

	Present value of additional costs resulting from production in first year	Accretion at 6% per year	Balance of ARO related to production activity for first year
Jul.1/17	0	0	0
Dec.31/17	1,078	0	1,078
Jul.1/18	1,110	32	2,220
Jul.1/19	0	133	2,353
Jul.1/20	0	141	2,494
Jul.1/21	0	150	2,644
Jul.1/22	0	159	2,803
Jul.1/23	0	168	2,971
Jul.1/24	0	178	3,149
Jul.1/25	0	189	3,338
Jul.1/26	0	200	3,538
Jul.1/27	0	212	3,750

**EXERCISE 13-17 (10-15 minutes)****(a) May 1, 2017****No entry – neither party has performed on May 1, 2017.****(b) May 15, 2017**

<b>Cash</b> .....	<b>3,200</b>	
<b>Unearned Revenue</b> .....		<b>3,200</b>

**(c) May 31, 2017**

<b>Unearned Revenue</b> .....	<b>3,200</b>	
<b>Sales Revenue</b> .....		<b>3,200</b>
<b>Cost of Goods Sold</b> .....	<b>2,150</b>	
<b>Inventory</b> .....		<b>2,150</b>

**EXERCISE 13-18 (10-15 minutes)**

<b>Dec. 5</b>	<b>Cash</b> .....	<b>500</b>	
	<b>Returnable Deposits</b> .....		<b>500</b>
<b>Dec.</b>	<b>Cash</b> .....	<b>797,780</b>	
	<b>Sales Revenue</b> ( $\$797,780 \div 1.13$ )....		<b>706,000</b>
	<b>HST Payable</b> ( $\$797,780 \div 1.13 \times .13$ )		<b>91,780</b>
<b>Dec. 10</b>	<b>Trucks</b> ( $\$125,995 \div 1.13$ ) .....	<b>111,500</b>	
	<b>HST Receivable</b> ( $\$111,500 \times .13$ ) .....	<b>14,495</b>	
	<b>Cash</b> .....		<b>125,995</b>
<b>Dec. 31</b>	<b>Land Improvements</b> .....	<b>84,000</b>	
	<b>Asset Retirement Obligation</b> .....		<b>84,000</b>

**EXERCISE 13-19 (10-15 minutes)**

<b>(a)</b>	<b>Cash (150 X \$4,000).....</b>	<b>600,000</b>	
	<b>Sales Revenue.....</b>		<b>600,000</b>
	<b>Warranty Expense.....</b>	<b>17,000</b>	
	<b>Materials, Cash, Payables, etc. ....</b>		<b>17,000</b>
	<b>Warranty Expense (\$45,000* – \$17,000)....</b>	<b>28,000</b>	
	<b>Warranty Liability.....</b>		<b>28,000</b>
	<b>*(150 X \$300)</b>		

<b>(b)</b>	<b>Cash.....</b>	<b>600,000</b>	
	<b>Sales Revenue.....</b>		<b>600,000</b>
	<b>Warranty Expense.....</b>	<b>17,000</b>	
	<b>Materials, Cash, Payables, etc. ....</b>		<b>17,000</b>

**(c) The cash basis of accounting for warranty costs is generally not acceptable under GAAP. However, some companies may use it when the costs are very immaterial or when the warranty period is quite short. It may also be used when the amount of the liability cannot be reasonably estimated or if future costs are not likely to be incurred.**

**(d) The recording of assurance-type warranties is the same under IFRS and ASPE. However, under ASPE it is based on the principle that when revenue covers a variety of deliverables (bundled sales) it should be unbundled and the revenue allocated to the various goods or services that are required to be performed.**

**EXERCISE 13-20 (15-20 minutes)****(a) Estimated warranty expense for 2017:**

On 2017 sales: \$1,036,000 X .09\* = \$ 93,240

\*(2% of sales first year + 3% of sales second year + 4% of sales third year = 9% of sales)

<u>Sales</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Total</u>
\$810,000	\$16,200	\$24,300	\$32,400			\$72,900
1,070,000		21,400	32,100	42,800		96,300
1,036,000			<u>20,720</u>	31,080	41,440	<u>93,240</u>
	<u>\$16,200</u>	<u>\$45,700</u>	<u>\$85,220</u>			<u>\$262,440</u>

Or:

Estimated warranty costs:

On 2015 sales \$ 810,000 X .09	\$ 72,900
On 2016 sales \$1,070,000 X .09	96,300
On 2017 sales \$1,036,000 X .09	<u>93,240</u>
Total estimated costs	262,440
Total warranty expenditures	<u>146,700*</u>
Balance of liability, 12/31/17	<u>\$115,740</u>

\*2015—\$16,500; 2016—\$47,200, and 2017—\$83,000.

The liability account has a balance of \$115,740 at 12/31/17 based on the difference between the estimated warranty costs (totalling \$262,440) for the three years' sales and the actual warranty expenditures (totalling \$146,700) during that same period.

- (b) The recording of assurance-type warranties is the same under IFRS and ASPE. However, under ASPE it is based on the principle that when revenue covers a variety of deliverables (bundled sales) it should be unbundled and the revenue allocated to the various goods or services that are required to be performed.**

**EXERCISE 13-20 (CONTINUED)**

- (c) **The difference between actual warranty expenditures and the estimated amount would be treated as a change in accounting estimate and applied to the current and future years. The difference would be used as part of Cool Sound's experience in setting the rate for current and future years' transactions. If the difference is considered material, the additional warranty expenditures would be charged to the income statement in the current year.**



**EXERCISE 13-21 (20-25 minutes)**

<b>(a)</b>	<b>Accounts Receivable .....</b>	<b>3,000,000</b>	
	<b>Sales Revenue.....</b>		<b>3,000,000</b>
	<b>(500 X \$6,000)</b>		
	<b>Warranty Expense.....</b>	<b>30,000</b>	
	<b>Cash.....</b>		<b>30,000</b>
	<b>Warranty Expense.....</b>	<b>90,000</b>	
	<b>Warranty Liability.....</b>		<b>90,000</b>
	<b>(\$120,000 – \$30,000)</b>		
<b>(b)</b>	<b>Accounts Receivable .....</b>	<b>3,000,000</b>	
	<b>Sales Revenue.....</b>		<b>2,840,000</b>
	<b>Unearned Warranty Revenue .....</b>		<b>160,000</b>
	<b>Warranty Expense.....</b>	<b>30,000</b>	
	<b>Cash.....</b>		<b>30,000</b>
	<b>Unearned Warranty Revenue .....</b>	<b>40,000</b>	
	<b>Warranty Revenue .....</b>		<b>40,000</b>
	<b>[\$160,000 X (\$30,000/\$120,000)]</b>		

**EXERCISE 13-21 (CONTINUED)****(c)**

<b>Sales Revenue</b>	<b>\$3,000,000</b>	<b>\$2,840,000</b>
<b>Warranty Revenue</b>	<b>0</b>	<b>40,000</b>
<b>Warranty Expense</b>	<b><u>(120,000)</u></b>	<b><u>(30,000)</u></b>
<b>Net Income</b>	<b><u>\$2,880,000</u></b>	<b><u>\$2,850,000</u></b>

Treating the warranty as an integral part of the sale under the assurance-type (expense based approach) for warranties will trigger a larger expense. This is because the full cost of servicing the product over the course of the warranty period must be estimated and disclosed in the period of sale. The warranty expense under a service-type (revenue based approach) for warranties consists of only expenses incurred in the current period.

The presentation of sales revenue will also differ under the two approaches. Under the assurance-type warranty, the sales proceeds from selling the product generate only one revenue source. Under the service-type warranty approach, the sale of the product generates two different revenue streams (the sale of the product and the sale of the warranty contract as service revenue) as well as two gross profit sources (sales revenue less cost of goods sold and warranty revenue net of warranty expense).

The service-type warranty approach generates a lower income in the current year because a portion of the profit is deferred to future periods when it is earned as the service is provided.

- (d)** The recording of assurance-type and service-type warranties is the same under IFRS and ASPE. However, under ASPE, it is based on the principle that when revenue covers a variety of deliverables (bundled sales) it should be unbundled and the revenue allocated to the various goods or services that are required to be performed.

**EXERCISE 13-21 (CONTINUED)**

- (e) If the warranty costs are considered to be immaterial, the cash basis method could be used and warranty costs recognized in the year they are incurred. However, if the warranty costs are considered material to the company's financial statements, the company may have to defer recognizing the revenue from the sale of the product until all costs can be measured and matched against the related revenues.**

**EXERCISE 13-22 (25-30 minutes)****(a) Assurance-type (expense approach):**

Accounts Receivable .....	3,000,000	
Sales Revenue.....		3,000,000
(1,000 X \$3,000)		
Warranty Expense.....	105,000	
Cash.....		105,000
Warranty Expense.....	95,000	
Warranty Liability .....		95,000
[(1,000 X \$200) – \$105,000]		

**December 31, 2017 financial statement amounts reported:****Balance Sheet**

Warranty liability	\$95,000
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**Income Statement**

Sales revenue	\$3,000,000
Warranty expense	200,000

**EXERCISE 13-22 (CONTINUED)****(a) (continued)****Service-type (revenue approach):**

<b>Accounts Receivable .....</b>	<b>3,000,000</b>	
<b>Sales Revenue.....</b>		<b>2,650,000</b>
<b>Unearned Warranty Revenue .....</b>		<b>350,000</b>
<b>Warranty Expense.....</b>	<b>105,000</b>	
<b>Materials, Cash, Payables, etc. ....</b>		<b>105,000</b>
<b>Unearned Warranty Revenue .....</b>	<b>183,750</b>	
<b>Warranty Revenue .....</b>		<b>183,750</b>
<b>[\$350,000 X (\$105,000/\$200,000)]</b>		

**December 31, 2017 financial statement amounts reported:****Balance Sheet**

<b>Unearned warranty revenue</b>	<b>\$166,250</b>
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**Income Statement**

<b>Sales revenue</b>	<b>\$2,650,000</b>
<b>Warranty revenue</b>	<b>183,750</b>
<b>Warranty expense</b>	<b>105,000</b>

- (b) The recording of assurance-type and service-type warranties is the same under IFRS and ASPE. However, under ASPE it is based on the principle that when revenue covers a variety of deliverables (bundled sales) it should be unbundled and the revenue allocated to the various goods or services that are required to be performed.**

**EXERCISE 13-22 (CONTINUED)**

- (c) **When the assurance-type approach is used to account for warranty costs, sales revenue will be higher because it is all considered to be earned upon the sale of the product. As well, the expense on the income statement will represent the total estimated costs of servicing the warranties (i.e., the actual costs of servicing the warranty in the period, plus a year end adjustment for expected future costs.) Therefore, the total gross profit on the warranty work is recognized in the period the equipment is sold.**

**When the service-type approach is used, sales revenue will be lower because the total selling price is allocated between the sale of the product and the sale of the warranty service. There will be an unearned warranty revenue liability account for the portion of the warranty that has not been taken into revenue at year end. Warranty expense will be equal to the actual costs of servicing the warranty during the year. In summary, the profit on the warranty work is recognized later under the revenue approach—in the period in which the warranty work is performed.**

**In this situation, it makes more sense to choose the service-type approach. In this way, income is reported as it is earned, and is a better measure of performance. In addition, as the company is considering going public in a few years, and the bifurcation of revenues to multiple deliverables is required by IFRS, the service-type approach would be consistent with what will be required after the company goes public. It would make sense to adopt this accounting policy now so that a retrospective change is not required later.**

**EXERCISE 13-23 (15-20 minutes)**

- (a) Because the points provide a material right to a customer that it would not receive without entering into a loyalty program, the points are a separate performance obligation. Bélanger allocates the transaction price to the product and the points on a relative standalone selling price basis as follows.

The standalone selling price:

Purchased products:	<b>\$100,000</b>
Estimated points to be redeemed	<u>9,500*</u>
Total Fair Value	<u><b>\$109,500</b></u>

\* 9,500 points X \$1 per point

The allocation is as follows.

Products ( $\$100,000 / \$109,500$ ) X  $\$100,000 = \$91,324$

Bonus points ( $\$9,500 / \$109,500$ ) X  $\$100,000 = \$8,676$

- (b) To record sales of products subject to bonus points:

Cash .....	100,000	
Unearned Revenue – Loyalty Programs		8,676
Sales Revenue .....		91,324
Cost of Goods Sold (1–45%) X 100,000 .....	55,000	
Inventory .....		55,000

- (c) Had Bélanger been following ASPE, there would be no difference in the accounting of the customer loyalty program transactions.

**EXERCISE 13-24 (15-20 minutes)****(a)**

<b>Inventory of Premiums (8,800 X \$0.90) .....</b>	<b>7,920</b>	
<b>    Cash .....</b>		<b>7,920</b>
<b>Cash (120,000 X \$3.30) .....</b>	<b>396,000</b>	
<b>    Sales Revenue .....</b>		<b>396,000</b>
<b>Premium Expense .....</b>	<b>3,960</b>	
<b>    Inventory of Premiums .....</b>		<b>3,960</b>
<b>    [(44,000 ÷ 10) X \$0.90]</b>		
<b>Premium Expense .....</b>	<b>2,520</b>	
<b>    Estimated Liability for Premiums .....</b>		<b>2,520</b>
<b>    [(120,000 X 60%) – 44,000] ÷ 10 X \$0.90</b>		

**(b) Balance Sheet:****Current Assets:**

<b>    Inventory of premiums (\$7,920 – \$3,960)</b>	<b>\$3,960</b>
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**Current Liabilities:**

<b>    Estimated liability for premiums</b>	<b>2,520</b>
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**Income Statement:**

<b>    Sales revenue</b>	<b>\$396,000</b>
<b>    Less: Premium expense (\$3,960 + \$2,520)</b>	<b>(6,480)</b>

**(c) Moleski followed the expense approach under ASPE. Had Moleski followed IFRS, the revenue approach would have been used.**



**EXERCISE 13-25 (20-30 minutes)**

<b>1</b>	<b>Liability for stamp redemptions, 12/31/16</b>	<b>\$13,000,000</b>
	<b>Cost of redemptions redeemed in 2017</b>	<b><u>(6,000,000)</u></b>
		<b>7,000,000</b>
	<b>Cost of redemptions to be redeemed in 2018</b>	
	<b>(\$5,200,000 x 80%)</b>	<b><u>4,160,000</u></b>
	<b>Liability for stamp redemptions, 12/31/17</b>	<b><u>\$11,160,000</u></b>
<b>2 (a)</b>	<b>Face value of total coupons issued</b>	<b>\$800,000</b>
	<b>Redemption rate</b>	<b><u>60%</u></b>
	<b>Amount to be redeemed</b>	<b>480,000</b>
	<b>Handling charges (\$480,000 X 10%)</b>	<b><u>48,000</u></b>
	<b>Total cost</b>	<b><u>\$528,000</u></b>
	<b>Total cost</b>	<b>\$528,000</b>
	<b>Total payments to retailers</b>	<b><u>330,000</u></b>
	<b>Liability for unredeemed coupons</b>	<b><u>\$198,000</u></b>
<b>(b)</b>	<b>Premium expense</b>	<b><u>\$528,000</u></b>

**EXERCISE 13-25 (CONTINUED)****3 (a)**

<b>Boxes sold</b>	<b>700,000</b>
<b>Sale price per unit related to premium</b>	<b>X \$1.00</b>
<b>Unearned revenue recorded in 2017</b>	<b><u>\$700,000</u></b>

<b>Total coupons expected to be redeemed (700,000 x 60%)</b>	<b>420,000</b>
<b>Less: coupons redeemed during 2017</b>	<b><u>105,000</u></b>
<b>Coupons still to be redeemed, 12/31/17 ÷</b>	<b>315,000</b>
<b>Total coupons expected to be redeemed</b>	<b><u>420,000</u></b>
<b>% of unearned revenue to be earned after 2017</b>	<b><u>75%*</u></b>
<b>*(\$316</b>	

<b>Unearned revenue recorded in 2017</b>	<b>\$700,000</b>
<b>% of unearned revenue to be earned after 2017</b>	<b><u>X 75%</u></b>
<b>Unearned revenue (adjusted), 12/31/17</b>	<b><u>\$525,000</u></b>

<b>(b) Total coupons redeemed in 2017</b>	<b>105,000</b>
<b>Cost per redemption (\$6.25 – \$4.75)</b>	<b><u>X \$1.50</u></b>
<b>Premium expense</b>	<b><u>\$157,500</u></b>

**(c)**

<b>Cash</b> .....	<b>3,150,000</b>	
<b>Sales Revenue (700,000 X \$3.50)</b> .....		<b>2,450,000</b>
<b>Unearned Revenue (700,000 x \$1.00)</b> .....		<b>700,000</b>
<b>Cash (105,000 X \$4.75)</b> .....	<b>498,750</b>	
<b>Premium Expense*</b> .....	<b>157,500</b>	
<b>Inventory of Premiums (105,000 X \$5.00)</b>		<b>525,000</b>
<b>Accounts Payable (105,000 X \$1.25)</b>		<b>131,250</b>
<b>* (105,000 X [\$5.00 + \$1.25 - \$4.75])</b>		
<b>Unearned Revenue (\$700,000 - \$525,000)</b> .....	<b>175,000</b>	
<b>Sales Revenue</b> .....		<b>175,000</b>

**EXERCISE 13-25 (CONTINUED)****3 (continued)**

- (d) An unredeemed coupon represents an obligation that arose from a past sale transaction, which may result in a transfer of assets (cash, for the freight, and inventory) upon coupon redemption. The company has little or no discretion to avoid the obligation. Therefore, the unredeemed coupons meet the definition of a liability. Their fair value should be represented as unearned revenue on the balance sheet because a coupon was offered with each box of pie mix purchased, and a portion of the sales revenue related to each box of pie mix sold was related to the promotional coupon that was included with each box. The unredeemed coupons represent unearned revenue to be settled by delivery of goods in the future, upon coupon redemption.**

**EXERCISE 13-26 (10-15 minutes)**

**(a) Balance Sheet:**

**Current Liabilities:**

**Estimated premium liability\* \$600**

**Income Statement:**

**Premium expense \$1,500**

**\* Total estimated redemptions of stickers, at cost \$1,500**  
 $(25,000 \times 10\% \div 10 \times \$10) \times 60\%$   
**Stickers redeemed in current year 900**  
 $(25,000 \times 6\% \div 10 \times \$10) \times 60\%$   
**Estimated future redemptions, at cost \$ 600**

**(b)**

<b>Premium Expense .....</b>	<b>900</b>	
<b>Inventory of Premiums .....</b>		<b>900</b>

**(cost of free product given in exchange when stickers were redeemed)**

<b>Premium Expense .....</b>	<b>600</b>	
<b>Estimated Liability for Premiums.....</b>		<b>600</b>

**(liability for unredeemed stickers)**

**(c) Had Timo been following IFRS, the revenue approach would have been used for the premiums instead of the expense approach used under ASPE.**

**EXERCISE 13-27 (15-20 minutes)****(a)****1. Coupon****Estimated promotion expense to be reported on income statement:**

<b>Remaining estimated redemptions of coupons (50 coupons to be used in future X 10% discount X \$75 average sale)</b>	<b>\$375</b>
<b>Coupons already used</b>	<b><u>250</u></b>
<b>Total promotion expense</b>	<b><u>\$625</u></b>

**Balance sheet disclosure:**

<b>Unredeemed coupons liability</b>	<b>\$375</b>
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**2. Sick time****As it is possible that these amounts will be paid in the future, and there is little likelihood that the employees will resign, the full amount should be accrued.****Balance Sheet:**

<b>Sick pay wages payable: (2 employees X \$200/day X 4 days X 50%)</b>	<b>\$800</b>
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**Income Statement:****Increase to salaries and wages expense on the income statement:**

<b>- For the sick days bonus outstanding related to the liability: (2 employees X \$200/day X 4 days X 50%)</b>	<b>\$800</b>
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**EXERCISE 13-27 (CONTINUED)**

- (b) The customer loyalty program offers future discounts of \$10 for accumulating sales of \$250. Under ASPE, these types of programs may be evaluated as a revenue arrangement with multiple deliverables. The fair value of the award credits would be recognized as unearned revenue, a liability, with each sale. When customers redeem their award credits, the amount would be recognized as revenue.**

**However, not all of the awards will be redeemed, as customers may lose their card, move away, or forget to redeem their award once it is earned. Once the company has some experience in order to estimate how many award credits will be redeemed, compared to the total credits awarded to customers, some adjustment can be made to the liability account at year end.**

**If the program is accounted for as a revenue arrangement with multiple deliverables, a liability must be recorded as each customer earns sales “credits” towards the \$250 total. The fair value of each credit given for each dollar of sales is \$0.04 ( $\$10/\$250$ ). Therefore, each sale to a customer who is a member of the customer loyalty program must be split, with 4% of the sale being recorded as unearned revenue, and the balance as a sale in the period of the transaction. When customers accumulate \$250 in credits, and come in to receive their \$10 discounts, this amount will be recorded as a decrease in unearned revenue and an increase in sales.**

**EXERCISE 13-28 (10-15 minutes)****(a) July 1, 2017**

<b>Accounts Receivable .....</b>	<b>3,000,000</b>	
<b>Refund Liability (\$3,000,000 X 12%) .....</b>		<b>360,000</b>
<b>Sales Revenue .....</b>		<b>2,640,000</b>
 <b>Estimated Inventory Returns</b>		
<b>(\$1,700,000 X 12%) .....</b>	<b>204,000</b>	
<b>Cost of Goods Sold .....</b>	<b>1,496,000</b>	
<b>Inventory .....</b>		<b>1,700,000</b>

**(b) October 3, 2017**

<b>Refund Liability .....</b>	<b>360,000</b>	
<b>Accounts Receivable .....</b>		<b>340,000</b>
<b>Sales Revenue .....</b>		<b>20,000</b>
<b>(to account for July sales returned and to adjust the original estimate of returns to reflect actual results for this year's "special").</b>		
 <b>Cost of Goods Sold .....</b>	<b>11,333*</b>	
<b>Inventory .....</b>	<b>192,667*</b>	
<b>Estimated Inventory Returns .....</b>		<b>204,000</b>
<b>* (\$1,700,000 ÷ \$3,000,000) X \$340,000 = \$192,667 and</b>		
<b>\$204,000 – \$192,667 = \$11,333</b>		
 <b>Cash .....</b>	<b>2,660,000</b>	
<b>Accounts Receivable .....</b>		<b>2,660,000</b>

**EXERCISE 13-29 (20-30 minutes)**

- 1. The *CPA Canada Handbook for Private Enterprises* section 3290 requires that, when some amount within the range appears at the time to be a better estimate than any other amount within the range, that amount be accrued. When no amount within the range is a better estimate than any other amount, the dollar amount at the low end of the range is accrued and the dollar amount of the high end of the range is disclosed. Since the information indicates that it is likely that a liability has been incurred at December 31, 2017, and a range of possible amounts can be reasonably determined, the criteria for recording a liability are met. In this case, therefore, Sugarpost Inc. would report a liability of \$900,000 at December 31, 2017.**
  
- 2. Su Li Corp. would not be required to make any entry. The wage increase is for the coming two years and does not relate to the current or prior years.**
  
- 3.(a) The loss should be accrued since both criteria (it is likely that a loss is incurred and the amount of the loss can be reasonably determined) for recording the contingency are met. Given that the loss is covered by insurance, except for the \$500,000 deductible, only the \$500,000 should be accrued.**
  
- (b) Under IFRS requirements, the recognition criterion used to determine the chance of occurrence of a confirming future event is “probable,” which is interpreted to mean “more likely than not.” This is a somewhat lower hurdle than the “likely” required under ASPE. If the amount cannot be measured reliably, no liability is recognized under IFRS either; however, the standard indicates that it is only in very rare circumstances that this would be the case. If recognized, IAS 37 requires the best estimate and an “expected value” method to be used to measure the liability. As in part (a) above, this would be the \$500,000 deductible.**



**EXERCISE 13-29 (CONTINUED)**

- 4. This is a gain contingency because the amount to be received will be in excess of the carrying amount of the plant. Under ASPE, gain contingencies are not recorded and are disclosed in the notes only when the probabilities are high that a gain contingency will become a reality.**

**EXERCISE 13-30 (15-20 minutes)**

$$(a) \quad \text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{\$210,000}{\$70,000} = 3.00$$

Current ratio measures the short-term ability of the company to meet its currently maturing obligations with current assets. In this case, current assets include cash, net accounts receivable, and inventory.

$$(b) \quad \text{Acid-test ratio} = \frac{\text{Cash} + \text{Marketable Securities} + \text{Net Receivables}}{\text{Current Liabilities}}$$

$$= \frac{\$115,000}{\$70,000} = 1.64$$

Acid-test ratio also measures the short-term ability of the company to meet its current maturing obligations. However, it eliminates assets that might be slow moving, such as inventory and prepaid expenses. In this case there are no marketable securities, so only cash and accounts receivable are included as current assets.

$$(c) \quad \text{Debt to total assets} = \frac{\text{Total Liabilities}}{\text{Total Assets}} = \frac{\$210,000}{\$430,000}$$

$$= 48.84\%$$

This ratio provides the creditors with some idea of the corporation's ability to withstand losses without impairing the interest of creditors.

$$(d) \quad \text{Rate of return on assets} = \frac{\text{Net Income}}{\text{Average Total Assets}}$$

$$= \frac{\$27,000}{\$430,000} = 6.28\%$$

This ratio measures the return the company is earning on its average total assets and provides one indication related to the profitability of the enterprise.

**EXERCISE 13-30 (CONTINUED)**

$$\begin{aligned} \text{(e) Days payables outstanding} &= \frac{\text{Average Trade Accounts Payable}}{\text{Average Daily Cost of Total Operating Expenses}} \\ &= \frac{\$70,000}{\$471,000^*/365} = 54.2 \text{ days} \end{aligned}$$

**\*(\$420,000 + \$51,000)**

**This ratio measures the time it takes a company to pay its trade accounts payable and provides one indication related to the liquidity of the enterprise if the number of days exceeds the normal credit period for the industry, or if the ratio reveals an increasing trend.**

**EXERCISE 13-31 (20-25 minutes)**

(a)

1. **Current ratio** =  $\frac{\$773,000}{\$220,000 + \$20,000} = 3.22$

2. **Acid-test ratio** =  $\frac{\$52,000 + \$198,000 + \$80,000}{\$220,000 + \$20,000} = 1.38$

3. **Accounts receivable turnover** =  
 $\$1,640,000 \div \frac{\$80,000 + \$198,000}{2} = 11.8 \text{ times}$   
(or approximately every 31 days) ( $365 \div 11.8$ )

4. **Inventory turnover** =  
 $\$800,000 \div \frac{\$360,000 + \$440,000}{2} = 2 \text{ times}$   
(or approximately every 183 days) ( $365 \div 2$ )

5. **Days payables outstanding** =  
 $\frac{\$145,000 + \$220,000}{2} \div \frac{\$800,000}{365} = 83 \text{ days}$

6. **Rate of return on assets** =  
 $\$360,000 \div \frac{\$1,400,000 + \$1,630,000}{2} = 23.76\%$

7. **Profit margin on sales** =  
 $\$360,000 \div \$1,640,000 = 21.95\%$

**EXERCISE 13-31 (CONTINUED)**

- (b) Financial ratios should be evaluated in terms of industry peculiarities and prevailing business conditions. Although industry and general business conditions are unknown in this case, the company appears to have a relatively strong current position. The main concern from a short-term perspective is the apparently low inventory turnover and the high days payables outstanding. The two ratios may be linked where extended credit terms are provided by suppliers if the inventory is slow-moving. The rate of return on assets and profit margin on sales are extremely good and indicate that the company is employing its assets advantageously.**
- (c) Unearned revenue is a liability that arises from current sales but for which some services or products are owed to customers in the future. At the time of sale, customers pay not only for the delivered product, but they also pay for future products or services. In this case, the company recognizes revenue from the current product and part of the sale proceeds is recorded as a liability (unearned revenue) for the value of future products or services that are “owed” to customers. An increase in the unearned revenue liability, rather than raising a red flag, often provides a positive signal about sales and profitability. When the sales are growing, the unearned revenue account should grow. Thus, an increase in a liability may be good news about company performance. In contrast, when unearned revenues decline, the company owes less future amounts but this also means that sales of new products may have slowed.**

**EXERCISE 13-32 (15-25 minutes)**

- (a)
1.  $\$318,000 \div \$87,000 = 3.66$
  2.  $\$820,000 \div \frac{\$200,000 + \$170,000}{2} = 4.43 \text{ times} = 82 \text{ days}$
  3.  $\$1,400,000 \div \$95,000 = 14.74 \text{ times}$
  4.  $365 \div 14.74 \text{ times} = 25 \text{ days}$
  5.  $\$32,000 \div \$820,000 \times 365 = 14 \text{ days}$
  6.  $\$285,000 \div 52,000 = \$5.48$
  7.  $\$285,000 \div \$1,400,000 = 20.4\%$
  8.  $\$285,000 \div \$588,000 = 48.5\%$
- (b)
1. No effect on current ratio.
  2. Weaken current ratio by increasing current assets and current liabilities by the same amount.
  3. Improve current ratio by reducing current assets and current liabilities by the same amount.
  4. No effect on current ratio.
  5. Weaken current ratio by increasing current liabilities with no change to current assets.
  6. No effect on current ratio.
  7. No effect on current ratio.

## TIME AND PURPOSE OF PROBLEMS

### **Problem 13-1 (Time 40-50 minutes)**

Purpose—to present the student with an opportunity to prepare journal entries for a variety of situations related to liabilities. The situations presented include purchases and payments on account, and borrowing funds by giving a zero-interest-bearing note, sales tax, deposits and income tax. The student is also required to prepare year-end adjusting entries and to calculate sales tax two ways. A comparison of any difference between the accounting treatment under IFRS and ASPE is included.

### **Problem 13-2 (Time 40-45 minutes)**

Purpose—to present the student with an instalment note with two terms of repayment (fixed principal, fixed amount of repayment) with a current and long-term portion. The student must prepare the amortization schedule for each note and the related journal entries. The balance sheet presentation is also required to emphasize the current amounts related to the note for two consecutive year ends. The comparison of interest costs for the two sets of notes and lender preferences are also discussed.

### **Problem 13-3 (Time 45-55 minutes)**

Purpose—to provide the student with experience in calculating the amounts of various liabilities and determining the portion relating to current liabilities. The student must calculate the interest payable on bonds and notes payable, warranty liability, employee withholding amounts payable, GST payable, deal with debit balances in the trade payables and other miscellaneous payables. The student is also required to discuss why certain items were excluded from current liabilities and which items are considered financial liabilities. Journal entries are not required. The student must also discuss debt covenants and income statement presentation of revenue from gift cards. This problem is an excellent overview of chapter content.

### **Problem 13-4 (Time 25-35 minutes)**

Purpose—to present the student a comprehensive problem in determining various liabilities and present findings in writing. Issues addressed relate to asset retirement obligation, warranties and HST.

## TIME AND PURPOSE OF PROBLEMS (CONTINUED)

### **Problem 13-5 (Time 25-35 minutes)**

Purpose—to present the student with an opportunity to prepare journal entries for four weekly payrolls. The student must calculate income tax to be withheld, CPP premiums, and employment insurance. The student must record two pay periods where employees are on vacation. In addition, the student needs to comment on the adequacy the disclosure of grouped liabilities on the balance sheet and grouped salary related expenses on the income statement, taking the perspective of a banker.

### **Problem 13-6 (Time 35-45 minutes)**

Purpose—to provide the student with the opportunity to prepare journal entries for a monthly payroll. The student must calculate income tax to be withheld, CPP contributions and Employment Insurance. The student must also calculate the total payroll tax expense for the company for the month. Analysis of the amount of payroll tax expense compared to salaries and wages expense is required. Student must comment on whether payroll taxes expense is a constant for all months of the calendar year. Finally, a proposal to convert salaried employees to contractors is discussed, along with the point of view of a potential investor for the proposal.

### **Problem 13-7 (Time 35-40 minutes)**

Purpose—to provide the student with experience in calculating bonuses under a variety of compensation plans. The student must calculate a bonus before deduction of bonus and income tax, after deduction of bonus but before deduction of income tax, and before deduction of bonus but after deduction of income tax. The student must also arrive at the classification of any balances owing, and deal with the accrual of bonus expenses when quarterly financial statements are issued by the business. A proposal for the timing of payments of the bonus is made by the recipient and the student must comment on the ethical and legal aspects of the proposal, taking the perspective of the CRA.



## TIME AND PURPOSE OF PROBLEMS (CONTINUED)

### Problem 13-8 (Time 45-50 minutes)

Purpose—to provide the student with a comprehensive problem dealing with contingent losses. The student is required to prepare journal entries for each of four independent situations. For each situation the student must also discuss the appropriate disclosure in the financial statements. The situations presented include a lawsuit, an environmental assessment, an expropriation, and self-insurance situation. This problem challenges the student not only to apply the guidelines set forth in *CPA Canada Handbook-Accounting*, Part II, Section 3290, but also to develop reasoning as to how the guidelines relate to each situation. The student is also required to discuss ethical issues inherent in contingent liabilities. Finally, the student must take the perspective of a potential investor and discuss the consequences of investing in a politically volatile location. A good problem to analyze the effects of Section 3290 on a variety of situations.

### Problem 13-9 (Time 35-40 minutes)

Purpose—to provide a problem in determining various liabilities, including advance payments, self insurance, litigation, commitments, guarantees, and loss contingencies. The students must also discuss any required disclosures. Finally, the student must look at the inherent risk of self-insurance from the perspective of a potential investor.

### Problem 13-10 (Time 25-30 minutes)

Purpose—to provide the student with an opportunity to prepare journal entries and balance sheet presentations for warranty costs under the cash basis and the assurance-type approach. Entries in the sales year and one subsequent year are required. The student must deal with recording differences between the amount accrued and the amount paid. The problem highlights the differences between the two methods in the accounts and on the balance sheet.

### Problem 13-11 (Time 20-30 minutes)

Purpose—to provide the student with a problem covering the assurance-type and service-type approaches for warranties. The student is required to prepare journal entries in the year of sale and in subsequent years as warranty costs are incurred. Also required are balance sheet presentations for the year of sale and two subsequent years. Finally, the student takes the perspective of a potential investor dealing with the risk of product recalls.

## TIME AND PURPOSE OF PROBLEMS (CONTINUED)

### Problem 13-12 (Time 30-35 minutes)

Purpose—to present the student with a comprehensive problem in determining the amounts of various liabilities. The student must calculate (for independent situations) the warranty liability, and an estimated liability for premium claims outstanding. Journal entries are not required. A comparison of the IFRS and ASPE accounting treatment is also required. A discussion of the financial implications of a change in policy concerning unlimited returns is included. This problem should challenge the better students.

### Problem 13-13 (Time 30-45 minutes)

Purpose—to provide the student with a basic problem in accounting for premium offers. The student is required to prepare journal entries relating to sales, the purchase of the premium inventory, and the redemption of coupons. The student must also prepare the year-end adjusting entry reflecting the estimated liability for premium claims outstanding. The student is required to prepare the entries under two different approaches, the premium redemptions are recorded as premium expense or as a decrease of the estimated liability for premiums. Statement presentation is also required.

### Problem 13-14 (Time 30-45 minutes)

Purpose—to present the student with a problem related to accounting for premium offers. The problem is more complicated in that coupons redeemed are accompanied by cash payments, and in addition to the cost of the premium item, postage costs are also incurred. The student is required to prepare journal entries for various transactions including sales, purchase of the premium inventory, and redemption of coupons for two years. The second year's entries are more complicated due to the existence of the liability for claims outstanding. Finally, the student is required to indicate the amounts related to the premium offer that would be included in the financial statements for each of two years and determine if the liability is financial. A comparison of the IFRS and ASPE accounting treatment is also required. This very realistic problem challenges the student's ability to account for all transactions related to premium offers.

## TIME AND PURPOSE OF PROBLEMS (CONTINUED)

### **Problem 13-15 (Time 35-40 minutes)**

Purpose—the student must calculate warranty expense, warranty liability, premium expense, inventory of premiums, and estimated liability for premiums. The student is also required to discuss how the accounting would be affected if the warranty were treated under the service-type warranty approach.

### **Problem 13-16 (Time 35-45 minutes)**

Purpose—to provide the student with experience in guarantees of indebtedness and contingencies. The student is required to provide journal entries related to guarantees and loss contingencies and to identify related disclosures. The situation is complicated by receivables from the guaranteed customer and revenue recognition issues related to the guarantee fee. A challenging problem.

### **Problem 13-17 (Time 45-50 minutes)**

Purpose—to present the student with the problem of determining the proper amount of and disclosure for two contingent losses due to lawsuits. The student is required to prepare journal entries and notes. The student is also required to discuss any liability incurred by a company due to the risk of loss from lack of insurance coverage. The student is required to take the position of the litigation lawyer involved in the lawsuits and describe how the assessment of the likelihood of the outcome of each case is arrived at and the measurement of the amount of the probable judgement.

**SOLUTIONS TO PROBLEMS****PROBLEM 13-1**

(a)			
	February 2		
	Purchases (\$46,000 X 98%).....	45,080	
	Accounts Payable .....		45,080
	February 26		
	Accounts Payable .....	45,080	
	Purchase Discounts Lost.....	920	
	Cash .....		46,000
	April 1		
	Trucks .....	50,000	
	Cash .....		5,000
	Notes Payable.....		45,000
	May 1		
	Cash .....	83,000	
	Notes Payable.....		83,000
	June 30		
	Income Tax Expense.....	19,000	
	Cash .....		19,000
	August 14		
	Retained Earnings (Dividends Declared).....	13,000	
	Dividends Payable .....		13,000
	September 10		
	Dividends Payable.....	13,000	
	Cash .....		13,000
	December 5		
	Cash .....	750	
	Returnable Deposits.....		750

**PROBLEM 13-1 (CONTINUED)**

(a) (continued)

December 10		
Furniture and Fixtures ( $\$8,000 \times 1.08$ ) .....	8,640	
GST Receivable ( $\$8,000 \times .05$ ) .....	400	
Accounts Payable .....		9,040

December 31		
Cash .....	89,270	
Sales Revenue .....		79,000
Sales Tax Payable ( $\$79,000 \times .08$ ) .....		6,320
GST Payable ( $\$79,000 \times .05$ ) .....		3,950

December 31		
Rent Expense .....	4,870	
Rent Payable .....		4,870
( $\$2,500 + [3\% \times \$79,000]$ )		

December 31		
Land Improvements .....	46,000	
Asset Retirement Obligation .....		46,000

December 31		
Income Tax Expense .....	19,000	
Cash .....		19,000

December 31		
Income Tax Expense .....	3,000	
Income Tax Payable .....		3,000
( $\$205,000 \times 20\%$ ) – ( $\$19,000 \times 2$ )		

December 31		
Interest Expense ( $\$45,000 \times 8\% \times 9/12$ ) .....	2,700	
Interest Payable .....		2,700

December 31		
Interest Expense ( $\$9,000 \times 8/12$ ) .....	6,000	
Notes Payable .....		6,000

**PROBLEM 13-1 (CONTINUED)**

(b)	Current Liabilities:	
	Accounts Payable .....	\$9,040
	Notes Payable.....	45,000
	Interest Payable .....	2,700
	Notes Payable.....	89,000
	Sales Tax Payable .....	6,320
	GST Payable (\$3,950 – \$400).....	3,550
	Rent Payable .....	4,870
	Income Tax Payable .....	3,000
	Returnable Deposits.....	<u>750</u>
	Total Current Liabilities.....	<u>\$164,230</u>

(c)	December 10	
	Furniture and Fixtures* .....	8,672
	GST Receivable (\$8,000 X .05).....	400
	Accounts Payable .....	9,072
	*( $\$8,000 + [\$8,000 \times 1.05 \times .08]$ )	

	December 31	
	Cash .....	89,586
	Sales Revenue .....	79,000
	Sales Tax Payable	
	( $\$79,000 \times 1.05 \times .08$ ).....	6,636
	GST Payable ( $\$79,000 \times .05$ ) .....	3,950

- (d) As a lender of money, the banker is interested in the priority his/her claim has on the company's assets relative to other claims. Close examination of the liability section and the related notes discloses amounts, maturity dates, collateral, subordinations, and restrictions of existing contractual obligations, all of which are important to potential and existing creditors. The assets and earning power are likewise important to a banker considering a loan.

**PROBLEM 13-1 (CONTINUED)**

- (e) Current liabilities are obligations whose liquidation is reasonably expected to require the use of existing resources properly classified as current assets, or the creation of other current liabilities.
  
- (f) The definition of liabilities under IFRS and ASPE do not currently differ. The Conceptual Framework Exposure Draft defines a liability as a present obligation to transfer an economic resource as a result of past events.

<b>PROBLEM 13-2</b>
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(a)

Date	Payment	Interest (5%)	Principal repayment	Carrying Amount of Note
Jan. 1, 2017				\$85,000
Jan. 1, 2018	\$23,971	\$4,250	\$19,721	65,279
Jan. 1, 2019	23,971	3,264	20,707	44,572
Jan. 1, 2020	23,971	2,229	21,742	22,830
Jan. 1, 2021	23,971	1,141	22,830	0
Total	\$95,884	\$10,884	\$85,000	

Using a financial calculator:

PV	?	Yields \$ 85,000
I	5%	
N	4	
PMT	\$ (23,971)	
FV	0	
Type	0	

Using Excel: =PV(rate,nper,pmt,fv,type)

Or

Using a financial calculator:

PV	\$ 85,000	
I	? %	Yields 5.0 %
N	4	
PMT	\$ (23,971)	
FV	0	
Type	0	

Excel formula =RATE(nper,pmt,pv,fv,type)



**PROBLEM 13-2 (CONTINUED)**

(b)

Jan. 1 2017	Equipment.....	85,000	
	Notes Payable.....		85,000
Dec. 31 2017	Interest Expense .....	4,250	
	Interest Payable.....		4,250
Jan. 1 2018	Interest Payable .....	4,250	
	Notes Payable.....	19,721	
	Cash.....		23,971

(c)

Bian Inc.  
Statement of Financial Position (partial)  
December 31, 2017

Current Liabilities:			
	Interest Payable	\$4,250	
	Current portion of long-term note payable	<u>19,721</u>	\$23,971
Long-term Liabilities			
	Note Payable	\$85,000	
	Less: current portion	<u>(19,721)</u>	\$65,279

(d)

Bian Inc.  
Statement of Financial Position (partial)  
December 31, 2018

Current Liabilities:			
	Interest Payable	\$3,264	
	Current portion of long-term note payable	<u>20,707</u>	\$23,971
Long-term Liabilities			
	Note Payable	\$65,279	
	Less: current portion	<u>(20,707)</u>	\$44,572

**PROBLEM 13-2 (CONTINUED)**

(e)

Bian Inc.			
Statement of Financial Position (partial)			
December 31, 2017			
Current Liabilities:			
Interest Payable*	\$2,125		
Current portion of long-term note payable	<u>19,721</u>	\$21,846	
Long-term Liabilities			
Note Payable	\$85,000		
Less: current portion	<u>(19,721)</u>	\$65,279	

\*\$4,250 X 6/12 = \$2,975

(f) The fixed principal payments for each year would have been in the amount of \$21,250 ( $\$85,000 \div 4$ ).

Date	Payment	Interest (5%)	Principal repayment	Carrying Amount of Note
Jan. 1, 2017				\$85,000
Jan. 1, 2018	\$25,500	\$4,250	\$21,250	63,750
Jan. 1, 2019	24,438	3,188	21,250	42,500
Jan. 1, 2020	23,375	2,125	21,250	21,250
Jan. 1, 2021	22,313	1,063	21,250	-
Total	<u>\$95,625</u>	<u>\$10,625</u>	<u>\$85,000</u>	

(g) The highest interest costs are incurred with the fixed payment terms in part (a).

(h) As a lender, I would prefer to negotiate a fixed payment for the terms of repayment as I would yield the highest return on the loan.

**PROBLEM 13-3**

(a)

**Current Liabilities:**

Accounts payable (\$414,000* – \$23,000)	\$ 391,000
Liability to affiliated company	23,000
Notes payable (\$150,000 + \$200,000)	350,000
GST payable (Schedule 6)	11,900
Dividends payable	50,000
Bonus payable (75% X \$25,000)	18,750
Unearned revenue (Schedule 1)	65,750
Accrued liabilities (Schedule 2)	<u>545,749</u>
Total current liabilities	<u><u>\$1,456,149</u></u>

\*Note: The debit balances in accounts payable would be classified as current assets.

Schedule 1:

Unearned Revenues, Mar. 1, 2016	\$ 95,000
New gift card purchases	22,500
Gift card redemptions	(37,500)
15% of Mar. 1, 2016 balance recognized as revenue (15% X \$95,000)	<u>(14,250)</u>
Unearned revenue, Feb. 28, 2017	<u><u>\$65,750</u></u>

Schedule 2:

Interest payable (Schedule 3)	\$ 122,709
Warranty liability (Schedule 4)	1,240
Salaries and wages payable	220,000
Employee withholdings payable (Schedule 5)	105,300
Union dues payable	21,500
Audit fee payable	<u>75,000</u>
Total accrued liabilities	<u><u>\$545,749</u></u>

**PROBLEM 13-3 (CONTINUED)**

(a) (continued)

Schedule 3:

Interest on the bond ( $\$4,000,000 \times 7\% \times 3/12$ )	\$ 70,000
Interest on Note due 04/01/17 ( $\$150,000 \times 8\% \times 11/12$ )	11,000
Interest on Note due 01/31/18 ( $\$200,000 \times 9\% \times 1/12$ )	1,500
Interest on Note due 03/15/18 ( $\$500,000 \times 7\% \times 11.5/12$ )	33,542
Interest on Note due 10/30/19 ( $\$250,000 \times 8\% \times 4/12$ )	<u>6,667</u>
Total interest payable	<u>\$ 122,709</u>

Schedule 4:

Warranty liability 02/28/16	\$5,700
Less warranty claims on 2015-2016 sales	<u>(4,900)</u>
Remaining warranty liability	800
Warranty liability on 2016-2017 sales for following 12 months ( $\$154,000 \times 1\%$ )	1,540
Less: warranty claims on 2016-2017 sales	<u>(1,100)</u>
Current warranty liability 02/28/17	<u>\$1,240</u>

Schedule 5:

EI premiums payable ( $2.4 \times \$9,500$ )	\$ 22,800
CPP contributions payable ( $2 \times \$16,900$ )	33,800
Employee income tax deductions payable	<u>48,700</u>
Employee withholdings payable	<u>\$105,300</u>

Schedule 6:

Net GST payable, 01/31/17 ( $\$60,000 - \$34,000$ )	\$ 26,000
Less: payment on 15 <sup>th</sup> of Feb./17	(26,000)
GST charged on February sales	39,900
GST Receivable	<u>(28,000)</u>
Net GST payable, 02/28/17	<u>\$11,900</u>

**PROBLEM 13-3 (CONTINUED)**

- (b) All current liabilities listed with the exception of the unearned revenues, the warranty liability, the employee withholdings payable (employee income tax deductions payable, EI premiums payable and CPP contributions payable), and GST payable are financial liabilities.

A financial liability is any liability that is a contractual obligation to deliver cash or other financial assets to another party, or to exchange financial assets or financial liabilities with another party under conditions that are potentially unfavourable to the entity. A contractual obligation refers to an agreement between two or more parties that has clear economic consequences that the parties have little, if any, discretion to avoid, usually because the agreement is enforceable at law. Contracts, and thus financial instruments, may take a variety of forms and need not be in writing.

Items such as unearned revenue and most warranty obligations are not financial liabilities because the probable outflow of economic benefits associated with them is the delivery of goods and services rather than cash or another financial asset.

GST payable and employee withholdings payable are not considered financial liabilities because they are not contractual in nature. They are created as a result of statutory requirements imposed by governments.

**PROBLEM 13-3 (CONTINUED)**

- (c) Items excluded from current liabilities:
1. Bonds payable were excluded based on the assumption that the bonds will not be redeemed in the coming period or operating cycle, whichever is longer.
  2. Notes payable due 03/15/18 and 10/30/19 were excluded because their due date is beyond the coming period.
  3. Warranty liability for costs of 1.5% of 2016-2017 sales ( $1.5\% \times \$154,000 = \$2,310$ ) would be shown as a long-term liability. The costs of honouring the warranty would occur beyond the coming period.
  4. Bonus payable in March 2018 ( $\$25,000 \times 25\% = \$6,250$ ).
- (d) Under ASPE, if Hrudka is not in compliance with the bank's debt covenants, the note would be reclassified as a current liability. A breach of the covenants of long-term debt gives the creditor the right to demand short-term repayment of the debt (the liability becomes payable on demand). The note can be classified as long-term only if the creditor waives in writing the covenant (agreement) requirements, or the violation has been cured within the grace period and it is likely Hrudka will not violate the covenant requirements within a year from the balance sheet date.
- (e) Revenue from redeemed cards should be shown with other product sales and offset against cost of sales to accurately measure gross profit. Revenue from unredeemed gift cards do not have a related product cost and will distort the gross margin if they are included in product sales revenues. They should be shown as a separate source of revenue. Given the increasing popularity of gift cards, the revenue should be shown as an ongoing source of revenue in the income from operations section of the income statement and not as "other revenues".

**PROBLEM 13-3 (CONTINUED)**

- (f) ASPE does not separately address the issue of non-financial liabilities, and so they are measured in a variety of ways, depending on the liability. Under IFRS, non-financial liabilities are measured initially and at each subsequent reporting date at the best estimate of the amount the entity would rationally pay at the date of the statement of financial position to settle the present obligation. This is usually the present value of the resources needed to fulfill the obligation, measured at the expected value or probability-weighted average of the range of possible outcomes.

When assessing the adequacy of the Warranty Liability account balance at year-end under IFRS, management would scrutinize the historical data available to support the balance needed to satisfy future warranty claims. Using probability-weighted average of the range of possible outcomes may result in a different required year-end balance in the account.

**PROBLEM 13-4**

(a)	Cost of storage tanks <span style="float: right;">\$110,000</span> Asset retirement cost ( $\$28,000 \times .55839$ ) [PV of $\$28,000$ FV ( $n=10, i=6\%$ )] <span style="float: right;"><u>15,635</u></span> Balance in asset account, Feb. 28, 2017 <span style="float: right;"><u>\$125,635</u></span>
	Depreciation for 2017 ( $\$125,635 \div 10 \times 10/12$ ): <span style="float: right;">\$10,470</span>
	Presentation on Dec. 31, 2017 balance sheet:
	Asset cost <span style="float: right;">\$125,635</span> Less: Accumulated depreciation <span style="float: right;"><u>(10,470)</u></span> <span style="float: right;"><u>\$115,165</u></span>
(b)	Asset retirement obligation (ARO), Feb. 28, 2017 (from above) <span style="float: right;">\$15,635</span> 2017 interest expense ( $\$15,635 \times 6\% \times 10/12$ ) <span style="float: right;"><u>782</u></span> Balance of ARO, December 31, 2017 <span style="float: right;">16,417</span> 2018 interest expense ( $\$16,417 \times 6\%$ ) <span style="float: right;"><u>985</u></span> Balance of ARO, December 31, 2018 <span style="float: right;">17,402</span> 2019 interest expense ( $\$17,402 \times 6\%$ ) <span style="float: right;"><u>1,044</u></span> Balance of ARO, December 31, 2019 <span style="float: right;"><u>\$18,446</u></span>
(c)	Unearned warranty revenue recorded in 2017 ( $\$970 \times 20$ ) <span style="float: right;">\$19,400</span> Portion unearned at December 31, 2017 <span style="float: right;"><u>X 75%</u></span> Unearned warranty revenue, December 31, 2017 <span style="float: right;"><u>\$14,550</u></span>



**PROBLEM 13-4 (CONTINUED)**

(d) Warranty expense on the 2017 income statement will be \$2,700.

(e)

HST collected on sales (and therefore payable to the government) (20 machines X \$12,000 X 15%)	\$36,000
HST paid on purchase of underground tanks (and therefore receivable from government) (\$110,000 X 15%)	<u>16,500</u>
	<u>\$19,500</u>

Healy will send a cheque to the Receiver General for \$19,500 to pay its net HST liability.

(f) Healy's warranty obligation represents a stand-ready obligation to provide parts and labour under the warranty agreement at any time throughout the two-year contract period. This argument may support straight-line recognition of warranty revenue over the two-year contract term. On the other hand, if historical evidence indicates that warranty services are usually provided later in the two-year warranty period, a higher proportion of warranty revenue is actually earned in the later years of the contract period, and a higher proportion of warranty revenue should be recognized later in the contract. This would result in lower warranty revenue and net income in year 1, and a higher unearned warranty revenue liability balance at the end of year 1.

**PROBLEM 13-4 (CONTINUED)**

(f) (continued)

In this case, the company's 25% estimate of warranty revenue being earned in 2017 looks realistic. The \$2,700 of costs incurred in 2017 is exactly 25% of the estimate of total costs over the three years. In addition, if the assumption is that the warranties have been outstanding, on average, for half a year in 2017, they will be outstanding also for a full year in 2018 and the remaining half year in 2019. This supports an assumption of being earned evenly over the two-year warranty period.

A potential investor should be aware that accounting for warranties affects liabilities on the statement of financial position, as well as revenue and net income on the income statement, for multiple periods. If unsupported or biased assumptions are used in accounting for warranties, the resulting financial statements may not reflect the appropriate financial position or performance of the company.

<b>PROBLEM 13-5</b>
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**(a)                    Entries for Payroll 1 and 4 (individually)**

Salaries and Wages Expense .....	3,640.00*
Employee Income Tax Deductions	
Payable (10% X \$3,640) .....	364.00
EI Premiums Payable ** .....	68.43
CPP Contributions Payable *** .....	180.18
Union Dues Payable (1% X \$3,640).....	36.40
Cash .....	2,990.99

\*\$450 + \$610 + \$550 + \$1,250 + \$780 = \$3,640

Payroll Tax Expense .....	275.98
EI Premiums Payable (1.4 X \$68.43) .....	95.80
CPP Contributions Payable .....	180.18

\*\* EI Premiums = \$3,640 X 1.88% = \$68.43

\*\*\*CPP Contributions = \$3,640 X 4.95% = \$180.18

**Entries for Payroll 2 and 3 (individually)**

Vacation Wages Payable	
(\$450 + \$610 + \$1,250).....	2,310.00
Salaries and Wages Expense (\$550 + \$780) .....	1,330.00
Employee Income Tax Deductions	
Payable (10% X \$3,640) .....	364.00
EI Premiums Payable .....	68.43
CPP Contributions Payable .....	180.18
Union Dues Payable (1% X \$3,640).....	36.40
Cash .....	2,990.99
Payroll Tax Expense .....	275.98
EI Premiums Payable (1.4 X \$68.43) .....	95.80
CPP Contributions Payable .....	180.18

**PROBLEM 13-5 (CONTINUED)****(b) Monthly Payment of Payroll Liabilities**

Employee Income Tax Deductions Payable		
(\$364.00 X 4) .....	1,456.00	
EI Premiums Payable		
[\$68.43 X 4] + (\$95.80 X 4) .....	656.92	
CPP Contributions Payable (\$180.18 X 8).....	1,441.44	
Union Dues Payable (\$36.40 X 4) .....	145.60	
Cash .....		3,699.96

**(c) Vacation Entitlement for August**

Salaries and Wages Expense .....	397.60	
Vacation Wages Payable .....		397.60
\$3,640 X 2 weeks X 4% =	\$291.20	
\$1,330 X 2 weeks X 4% =	<u>106.40</u>	
	<u>\$397.60</u>	

(d) As Sultanaly's banker I do not object to the presentation adopted for salaries, wages and related expenses, nor for the accrued liabilities. A certain level of grouping to reduce details is perfectly acceptable and likely useful. It is fairly standard to accrue vacation entitlement at the rate of 4% and the statutory deductions are well known and could easily be estimated to arrive at a gross pay amount. Should details in either groupings of accounts become necessary, I would not hesitate to request the detail from the bank's client.

**PROBLEM 13-6**

(a)

Name	Earnings to Oct. 31	1 <sup>st</sup> week of Nov. Earnings	Income Tax Deducted	CPP	EI	Union Dues
L. Meloche	\$36,120	\$ 840	\$ 126	\$ 41.58	\$15.79	\$8.40
P. Groot	33,540	780	117	38.61	14.66	7.80
D. Beaux	54,180	1,260	189	*	*	12.60
C. Regier	6,000	1,000	150	49.50	18.88	10.00
<b>Total</b>	<u>\$129,840</u>	<u>\$3,880</u>	<u>\$582</u>	<u>\$129.69</u>	<u>\$49.25</u>	<u>\$38.80</u>

\* Annual maximum was previously reached

Salaries and Wages Expense .....	3,880.00
Employee Income Tax Deductions Payable .....	582.00
EI Premiums Payable .....	49.25
CPP Contributions Payable .....	129.69
Union Dues Payable .....	38.80
Cash .....	3,080.26

(b) Payroll Tax Expense .....	198.64
EI Premiums Payable (1.4 X \$49.25) ....	68.95
CPP Contributions Payable .....	129.69

(c) Employee Income Tax Deductions Payable .....	582.00
EI Premiums Payable (\$49.25 + \$68.95) .....	118.20
CPP Contributions Payable (\$129.69 + \$129.69) .....	259.38
Cash .....	959.58
Union Dues Payable .....	38.80
Cash .....	38.80

**PROBLEM 13-6 (CONTINUED)**

(d) Salaries and Wages Expense	\$3,880.00
Payroll tax expense	<u>198.64</u>
Total cost for first week of November, 2017	<u>\$4,078.64</u>
Percentage of payroll tax expense to gross pay	5.1%

Later in the calendar year, some employees will have reached the maximum amount of contributions to the CPP and EI programs, as was the case for D. Beaux above. Consequently, the payroll tax expense will be higher at the beginning of the calendar year, or at the beginning of the employment of a new employee and lower at the end of the calendar year, assuming employees earn more than \$49,500 per year for EI and \$53,600 for CPP calculation purposes.

- (e) As a potential investor, I would likely not be fooled by the reclassification of labour costs. I would be concerned with the shift from salaried employees to contract services provided by the same employees. My first concern would be with the Canada Revenue Agency (CRA) which keeps a close eye on employers who are mischaracterizing their relationships with employees in order to save costs on payroll expenses including CPP and EI, or for vacation pay or parental leave entitlements and possibly also additional benefit costs for such plans for medical and dental coverage. Bayview would be responsible for any penalties and unpaid payroll tax CRA would deem should have been remitted. My second concern would be with employee loyalty. Since Bayview would not be perceived as a long-term employer and could lay off employees on short notice with few consequences, employees would be more likely to look elsewhere for employment, causing high turnover of staff at Bayview.

**PROBLEM 13-7**

(a)

(B = bonus; T = tax)

1.
 

B	=	0.12 (\$250,000)
B	=	\$30,000
T	=	.30 (\$250,000 – \$30,000)
T	=	\$66,000
  
2.
 

B	=	0.12 (\$308,000 – B)
B	=	\$36,960 – .12B
1.12B	=	\$36,960
B	=	\$33,000
T	=	0.30 (\$308,000 – \$33,000)
T	=	\$82,500
  
3.
 

B	=	0.12 (\$350,000 – T)
T	=	0.30 (\$350,000 – B)
B	=	0.12 [\$350,000 – 0.30 (\$350,000 – B)]
B	=	0.12 (\$350,000 – \$105,000 + .3B)
B	=	\$29,400 + .036B
0.964B	=	\$29,400
B	=	\$30,497.93
T	=	.30 (\$350,000 – \$30,497.93)
T	=	\$95,850.62

- (b) Any outstanding bonus payable to Ms. Shen would be classified as a current liability on the statement of financial position for all three years since the quarterly payments are made within one year and the fiscal year end in which the bonus was earned.
- (c) Using the formulas and based on the best possible information at hand concerning the financial performance of the business, a pro-rated estimate would be made of the annual bonus for the first three quarters of the fiscal year and a final accrual would be made on the final results for the fourth quarter of the fiscal year.

**PROBLEM 13-7 (CONTINUED)**

- (d) There would be no difference in the accounting treatment of Huang's bonus to Ms Shen had IFRS been followed.
- (e) 1. From the perspective of the CRA advances on bonuses can be treated as loans to the officer, in this case the President Ms. Shen. The proposal is acceptable.

From an accounting perspective Huang will accrue bonus payable as described in (c) above. Any balance of bonus liability will be reduced by advances paid to Ms Shen. The net amount of any balances would be disclosed separately in the current assets or liability section of the statement of financial position.

2. Ms. Shen's proposal is ethical. The proposal is not to evade tax but to postpone tax and it is a reasonable approach to tax planning.



**PROBLEM 13-8**

(a)

1.	Litigation Expense .....	225,000	
	Litigation Liability.....		225,000
2.	Loss Due to Environmental Clean-up .....	500,000	
	Liability for Environmental Clean-up.....		500,000
3.	Loss on Expropriation .....	2,245,000	
	Inventory, Accumulated Impairment Losses, etc. (for each individual asset that has a value assessed to be impaired) .....		2,245,000
	[\$5,725,000 – (40% X \$8,700,000)]		
4.	No entry required.		

(b)

1. A loss and a liability have been recorded in the first case because (i) information is available prior to the issuance of the financial statements that indicates it is likely that a liability had been incurred at the date of the financial statements and (ii) the amount is reasonably estimable. That is, the occurrence of the uninsured accidents during the year plus the outstanding injury suits and the legal counsel’s estimate of probable loss require recognition of a loss contingency.  
No journal entry is recorded in the case of the \$60,000 injury suit since it is considered unlikely that a liability has been incurred at the date of the financial statements. If the amount were considered material, it would be desirable to disclose the existence of the lawsuit in the notes to the financial statements.

**PROBLEM 13-8 (CONTINUED)**

(b) (continued)

2. A loss and a liability have been recorded because information is available prior to the issuance of the financial statements that indicates it is likely that a liability had been incurred at the date of the financial statements. Under ASPE, where a range of possible amounts is determined and no one amount within the range is more likely than another, the bottom of the range is usually accrued with the amount of the remaining exposure disclosed in the notes.
  
3. An entry to record a loss and to establish reduced asset values due to threat of expropriation is necessary because the expropriation is imminent as evidenced by the foreign government's communicated intent to expropriate, and the prior settlements for properties already expropriated. Enough evidence exists to reasonably estimate the amount of the probable loss resulting from impairment of assets at the balance sheet date. The amount of the loss is measured by the excess of the carrying amount of the assets over the expected compensation. At the time the expropriation occurs, the related assets are written down or written off and any differences between the amount received and the reduced asset values will be adjusted to the Loss from Expropriation. In this case, it is asset values that have been impaired, not an additional liability that has been incurred. If there is significant uncertainty about which specific assets are affected, general allowance accounts (contra asset accounts) could be credited for each general category of asset.

**PROBLEM 13-8 (CONTINUED)**

(b) (continued)

4. Even though Sahoto's chemical product division is uninsurable due to high risk and has sustained repeated losses in the past, as of the balance sheet date no assets have been impaired or liabilities incurred nor is an amount reasonably estimable. Therefore, this situation does not satisfy the criteria for recognition of a loss contingency. Also, unless a casualty has occurred or there is some other evidence to indicate impairment of an asset prior to the issuance of the financial statements, there is no disclosure required relative to a loss contingency. The absence of insurance does not of itself result in the impairment of assets or the incurrence of liabilities. Expected future injuries to others or damage to the property of others, even if the amount is reasonably estimable, does not require recording a loss or a liability. The cause for loss or litigation or claim must have occurred on or prior to the balance sheet date and the amount of the loss must be reasonably estimable in order for a loss contingency to be recorded. Disclosure is required when one or both of the criteria for a loss contingency are not satisfied and there is a reasonable possibility that a liability may have been incurred or an asset impaired, or, it is probable that a claim will be asserted and there is a reasonable possibility of an unfavourable outcome.
- (c) In contingencies related to legal proceedings, the accrual for contingencies and the related disclosure can be construed as an admission of guilt and could weaken the company's position. Company's management has to balance the need for full disclosure with the need for careful management of the legal proceedings and protecting shareholder's interests by avoiding costly lawsuit damages. The ethical issues also involve the interpretation of terms such as "likely" and "reasonably estimable" in determining when and how much is shown on financial statements.

**PROBLEM 13-8 (CONTINUED)**

- (d) As a potential investor, I might find the consequences of management's past investment decisions to have been less than ideal. This would be particularly true with the benefit of hindsight. Claiming negligence on the part of the board of directors, however, is another matter. Management would have studied the potential financial consequences of locating in a politically volatile location and the past history of expropriations experienced by other firms. The decision to go ahead with the investment would have been reported and disclosed in the financial statements. The decision to absorb this risk on the basis of a cost benefit analysis warns the financial statement user of the potential for losses in the future. As a potential investor I would not view the choice as negligent on the part of the board of directors.

**PROBLEM 13-9****(a) ASPE**

1.	Unearned Subscriptions Revenue.....	400,000	
	Sales Revenue .....		400,000
	(To record subscriptions earned during 2017)		

Carrying amount balance of liability account at 12/31/17	\$2,300,000
Adjusted balance (\$600,000 + \$500,000 + \$800,000)	<u>1,900,000</u>
Credit to sales revenue account	<u>\$ 400,000</u>

2. No entry should be made to accrue for an expense, because the absence of insurance coverage does not mean that an asset has been impaired or a liability has been incurred as of the balance sheet date. The company may, however, appropriate retained earnings for self-insurance as long as actual costs or losses are not charged to the appropriation of retained earnings and no part of the appropriation is transferred to income. Appropriation of retained earnings and/or disclosure in the notes to the financial statements are not required, but are recommended.

3.	Litigation Expense .....	300,000	
	Litigation Liability .....		300,000
	(To record estimated minimum damages on breach-of-contract litigation)		

Note disclosure would also be required indicating the nature of the loss contingency and that there is an exposure to loss in excess of the amount recorded.

**PROBLEM 13-9 (CONTINUED)**

(a) (continued)

4. No entry should be made for this loss contingency, because it is not likely that an asset has been impaired or a liability has been incurred and the loss cannot be reasonably estimated as of the balance sheet date. The company must however disclose the guarantee in the notes to its financial statements, even if the likelihood of loss is remote. The note disclosure should include the nature of the guarantee, the maximum potential amount of future payments, the nature and extent of any recourse provisions and the carrying amount of any liability.
5. No entry should be made since it does not represent a liability at the balance sheet date. The company should have a note disclosure for this contractual obligation since it represents a major capital expenditure commitment.
6. No entry should be made for this loss contingency, because it is not likely that an asset has been impaired or a liability has been incurred and the loss cannot be reasonably estimated as of the balance sheet date. The loss contingency should be disclosed in the notes to financial statements.

**PROBLEM 13-9 (CONTINUED)****(b) IFRS**

IAS 37 would be similar to the ASPE standard except that under IAS 37, provisions are required for situations where it is “probable” or “more likely than not” that a present obligation exists. This is a somewhat lower hurdle than the “likely” required under ASPE. If the amount cannot be measured reliably, no liability is recognized under IFRS either; however, the standard indicates that it is only in very rare circumstances that this would be the case. If recognized, IAS 37 requires that the best estimate and an “expected value” method be used to measure the liability. This approach assigns weights to the possible outcomes according to their associated probabilities when measuring the amount of the provision, if a range of possible amounts is available.

- (c) As a potential investor, I might find the future adverse consequences of the decision made by Ramirez to become self-insured as negligent behaviour on the part of the Board of Directors. However, presumably management would have studied the potential financial consequences of self insurance and would have reported and disclosed the decision in the notes to the financial statements. Disclosing the decision to absorb this risk on the basis of a cost benefit analysis warns the financial statement user of the potential for losses in the future. As a potential investor I would not view the choice as negligent on the part of the board of directors if it was properly studied by management and fully disclosed.

**PROBLEM 13-10**

(a)	Cash (400 X \$2,500).....	1,000,000	
	Sales Revenue .....		1,000,000
(b)	Cash (400 X \$2,500).....	1,000,000	
	Sales Revenue .....		1,000,000
	Warranty Expense .....	136,000	
	Warranty Liability .....		136,000
	(400 X [\$155 + \$185])		
(c)	No liability would be disclosed under the cash basis method, with respect to future costs due to warranties on past sales.		
(d)	Current Liabilities:		
	Warranty Liability		<u>\$68,000</u>
	Long-term Liabilities:		
	Warranty Liability		<u>\$68,000</u>
(e)	Warranty Expense.....	61,300	
	Inventory .....		21,400
	Salaries and Wages Payable .....		39,900
(f)	Warranty Liability .....	61,300	
	Inventory .....		21,400
	Salaries and Wages Payable .....		39,900



**PROBLEM 13-10 (CONTINUED)**

- (g) The assurance-type approach results in matching of warranty costs with the revenues that generate them. The cash basis would be acceptable only where the warranty costs are immaterial or when the warranty period is relatively short. This is not the case for Brooks. Increasingly today, the asset and liability view and faithful representation drive the accounting model, resulting in the bifurcation or separation of the proceeds received into two or more revenue amounts for the various deliverables promised. This is referred to as the service-type warranty approach.
- (h) Higher than predicted warranty expenditures will cause the Warranty Liability account to have an understated balance that will not be sufficient for future warranty obligations. Management must review actual warranty claims experience against the estimated warranty liability balances in order to adjust the rate used to record warranty expense in the current and future years. The discrepancy is treated as a change in an accounting estimate and is applied to the current and future periods. In 2019, Brook's management would have to record a larger warranty expense in order to accurately measure the Warranty Liability.

**PROBLEM 13-11**

(a)	Cash .....	279,300	
	Sales Revenue (300 X \$850) .....		255,000
	Unearned Warranty Revenue.....		24,300
	(270 X \$90)		
	Warranty Expense .....	7,500	
	Warranty Liability .....		7,500
	(300 X \$25)		
(b)	Current Liabilities:		
	Warranty Liability		<u>\$ 7,500</u>
	Long-term Liabilities:		
	Unearned Warranty Revenue		<u>\$24,300</u>
(c)	Warranty Liability .....	7,350	
	Inventory .....		4,410
	Salaries and Wages Payable .....		2,940
	Warranty Liability (\$7,500 - \$7,350) ...	150	
	Warranty expense .....		150
(d)	Current Liabilities:		
	Unearned Warranty Revenue*		<u>\$ 8,100</u>
	Long-term Liabilities:		
	Unearned Warranty Revenue		<u>\$16,200</u>

\* The extended warranty revenues are expected to be earned evenly over the warranty period ( $\$24,300 / 3 = \$8,100$ ).

**PROBLEM 13-11 (CONTINUED)**

(e)	Unearned Warranty Revenue.....	8,100	
	Warranty Revenue .....		8,100
	Warranty Expense.....	5,000	
	Inventory .....		2,000
	Salaries and Wages Payable .....		3,000

(f)	Current Liabilities:		
	Unearned Warranty Revenue.....		<u>\$ 8,100</u>

	Long-term Liabilities:		
	Unearned Warranty Revenue.....		<u>\$ 8,100</u>

- (g) The costs incurred for product recalls are not included in the liability for warranties accounted using the assurance-type method. Warranty claims are initiated by users for defects in products, whereas in the case of product recalls, the manufacturer initiates the offer to replace or repair all products.

Product recalls occur when faults are found in products that can result in harm or injury to all users. When products are recalled, the business is required to correct or repair the faulty equipment or refund the consumer for the purchase of the recalled product. At the point of sale of the product, the event that causes the recall is considered remote. Businesses are not required to accrue for this contingency, unless, because of the nature of the product and the history of recalls of the past, the company can reasonably measure a likely amount that will be paid to satisfy recalls. This could be the case, for example, in the auto industry for a normal level of minor recalls, where user harm or negligence on the part of the manufacturer is not involved.

**PROBLEM 13-11 (CONTINUED)**

(g) (continued)

Product recalls involve costs that are far greater than the costs involved in honouring individual warranties. Although recalls may be infrequent, they generally have a substantial impact on the financial performance of the business. If the business accepts an imperfect product design that is unlikely to affect the performance of the product and not cause any harm, it may ignore the requirement to accrue for those future events.

**PROBLEM 13-12**

(a)

Calculation of the sales price of batteries expected to be returned:

July – September sales X 8% return rate	
(\$1,800,000 + \$1,650,000 + \$2,050,000) X 8% .....	\$440,000
October – December sales X 10% return rate	
(\$1,425,000 + \$1,000,000 + \$900,000) X 10% .....	<u>332,500</u>
See also total in part (b)	<u>\$772,500</u>

Estimated cost to replace batteries that have been returned as defective (measured as the sales price of batteries to be returned X cost of goods sold percentage):

The account balance in the “Battery Warranty Expense” account for the period July 1 to December 31, 2017 is calculated as follows:

Estimated cost of replacing batteries related to the	
July – December sales:	
Cost to replace batteries (\$772,500 X 60%) .....	\$463,500
Freight cost (\$772,500 X 10%) .....	77,250
Less: Salvage value (\$772,500 X 14%) .....	<u>(108,150)</u>
See also total in part (b)	432,600
Less: adjustment for the warranty liability not	
needed from expense estimate for the	
first half of the year .....	
	<u>(5,000)</u>
Battery warranty expense, July 1 – Dec. 31, 2017 .....	<u>\$427,600</u>

**PROBLEM 13-12 (CONTINUED)**

- (b) The amount of the accrual required in the Warranty Liability account (for the battery warranty) as at December 31, 2017 is calculated as follows:

Month	Sales amount for month	% of battery returns expected	Sales price of batteries expect to be returned	Cost to replace defective batteries (= 60% + 10% – 14% = 56% of sales returns)	% of defective batteries remaining to be returned as at December 31, 2017	Accrual required (= cost to replace X % remaining to be returned)
July	\$1,800,000	8%	\$ 144,000	\$ 80,640	10%	\$ 8,064
August	1,650,000	8%	132,000	73,920	20%	14,784
September	2,050,000	8%	164,000	91,840	30%	27,552
October	1,425,000	10%	142,500	79,800	50%	39,900
November	1,000,000	10%	100,000	56,000	80%	44,800
December	900,000	10%	<u>90,000</u>	<u>50,400</u>	100%	<u>50,400</u>
			<u>\$772,500</u>	<u>\$432,600</u>		<u>\$ 185,500</u>

**PROBLEM 13-12 (CONTINUED)**

- (c) There would be no difference in the accounting treatment under ASPE.
- (d) Because the change in the warranty policy was not in effect for the fiscal year ending December 31, 2017, there would be no basis for accruing any expenses related to the accounting treatment of future warranty claims made by existing customers. Since the policy will begin April 1, 2018 soon after the release of the announcement, sales to April 1, 2018 will be given the warranty policy treatment in effect at the date of the sale.

Within the December 31, 2017 financial statement notes, a description of the estimates used in accounting for warranty claims would be disclosed. These financial statement notes would not include the basis of future estimates under the new warranty policy effective April 1, 2018. Statements and claims made by the CEO concerning the likely effect on future sales that are expected under the new policy are not required within the financial statements and are not subject to IFRS or ASPE disclosure requirements. They may also be overly optimistic. The potential shareholder should be mindful of management's tendency to be optimistic about potential future effects on sales and the related warranty expenses.

**PROBLEM 13-13**

(a)

Inventory of Premiums .....	60,000	
Cash .....		60,000
(To record purchase of 40,000 puppets at \$1.50 each)		
Cash .....	1,800,000	
Sales Revenue .....		1,800,000
(To record sales of 480,000 boxes at \$3.75 each)		
Premium Expense .....	34,500	
Inventory of Premiums .....		34,500
[To record redemption of 115,000 coupons (115,000 ÷ 5) X \$1.50 = \$34,500]		
Premium Expense .....	23,100	
Estimated Liability for Premiums .....		23,100
[To record estimated liability for premium claims outstanding at December 31, 2017.]		
Calculation: Total coupons issued in 2017		<u>480,000</u>
Total estimated redemptions (40%)		192,000
Coupons redeemed in 2017		<u>115,000</u>
Estimated future redemptions		<u>77,000</u>
Cost of estimated claims outstanding (77,000 ÷ 5) X \$1.50 = \$23,100		



**PROBLEM 13-13 (CONTINUED)**

(b)

Inventory of Premiums .....	60,000	
Cash .....		60,000
(To record purchase of 40,000 puppets at \$1.50 each)		
 Cash .....	1,800,000	
Sales Revenue .....		1,800,000
(To record sales of 480,000 boxes at \$3.75 each)		
 Premium Expense .....	57,600	
Estimated Liability for Premiums .....		57,600
[To record premium expense for the full estimated cost of the premium plan]		

Calculation:

Total coupons issued in 2017	480,000
Redemption rate	X 40%
Total estimated redemptions	<u>192,000</u>
Number of coupons per premium	÷ 5
Number of premium claims	38,400
Cost of premium	X \$1.50
Total premium expense for the year 2017	<u>\$57,600</u>

Estimated Liability for Premiums .....	34,500	
Inventory of Premiums .....		34,500
[To record redemption of 115,000 coupons (115,000 ÷ 5) X \$1.50 = \$34,500]		

**PROBLEM 13-13 (CONTINUED)**

- (c) The financial statement presentation would be the same for both approaches used in parts (a) and (b).

## Balance Sheet:

## Current Assets:

Inventory of Premiums (\$60,000 – \$34,500)	\$25,500
---	----------

## Current Liabilities:

Estimated Liability for Premiums (\$57,600 – \$34,500)	\$23,100
--	----------

## Income Statement:

Sales Revenue	\$1,800,000
Less: Premium Expense	57,600

(d)

Inventory of Premiums .....	60,000	
Cash .....		60,000
(To record purchase of 40,000 puppets at \$1.50 each)		
 Cash .....	 1,800,000	
Sales Revenue (480,000 X \$3.55) .....		1,704,000
Unearned Revenue .....		96,000
(To record sales of 480,000 boxes at \$3.55 each and unearned revenue of 480,000 X \$0.20 each)		

Estimated number of puppets to be

awarded:  $(480,000 \times 40\%) \div 5 = 38,400$

Premium revenue per award:  $\$96,000 \div 38,400 \text{ puppets} = \$2.50$

Cost per award: \$1.50 purchase cost

Premium Expense .....	34,500	
Inventory of Premiums .....		34,500
$(115,000 \div 5) = 23,000 \text{ puppets}$ 23,000 puppets X \$1.50 each		

**PROBLEM 13-13 (CONTINUED)**

(d) (continued)

Unearned Revenue .....	57,500	
Sales Revenue.....		57,500
23,000 puppets awarded X \$2.50 = \$57,500		

(e)

Balance Sheet:

Current Assets:

Inventory of Premiums (\$60,000 – \$34,500)	\$25,500
---	----------

Current Liabilities:

Unearned Revenue (\$96,000 – \$57,500)	\$38,500
--	----------

Income Statement:

Sales revenue - cereal		\$1,704,000
Sales revenue - premiums	\$57,500	
Less: premiums expense	<u>34,500</u>	
Net premiums income		23,000

Alternatively, the two Sales amounts could be reported together and the cost of the premiums could be included in Cost of Goods Sold, along with the cost of the cereal.

**PROBLEM 13-13 (CONTINUED)**

- (f) Under the expense approach in part (c), total revenue recorded in 2017 is higher than under the revenue approach in part (e). However, the expense approach triggers a larger premium expense in 2017 because the full cost of providing the premium is estimated and recorded in 2017; whereas the premium expense recorded under the revenue approach represents only expenses incurred in the current period. In 2017, net income is higher under the expense approach than under the revenue approach. Current liabilities are higher under the revenue approach than under the expense approach, due to bifurcation of the sale proceeds between the product and the premium and deferral of the revenue related to the premium, under the revenue approach.

Customer loyalty programs are discussed in IFRIC 13, which requires that current sale proceeds be bifurcated between the original product sold and the unearned revenue for the awards. Increasingly today, faithful representation and the asset and liability view of the financial statements drive the accounting model in favour of the revenue approach.

**PROBLEM 13-14**
(a) 2017

Inventory of Premiums .....	450,000	
Cash .....		450,000
(To record the purchase of 250,000 mini piggy banks at \$1.80 each)		

Cash .....	868,620	
Sales Revenue .....		868,620
(To record the sale of 2,895,400 candy bars at \$0.30 each)		

Cash (\$480,000 – \$120,000) .....	360,000	
Premium Expense .....	72,000	
Inventory of Premiums (240,000 x \$1.80) ..		432,000
[To record the redemption of 1,200,000 wrappers, the receipt of \$480,000 (1,200,000 ÷ 5) X \$2.00, and the mailing of 240,000 banks]		

Calculation of premium expense:

240,000 banks X \$1.80 each =	\$432,000	
Postage—240,000 X \$.50 =	<u>120,000</u>	
	\$552,000	
Less: Cash received—		
240,000 X \$2.00	<u>480,000</u>	
Premium expense for banks issued	<u>\$ 72,000</u>	

Premium Expense .....	17,400*	
Estimated Liability for Premiums .....		17,400
(To record the estimated liability for premium claims outstanding at 12/31/17)		
*(290,000 ÷ 5) X (\$1.80 + \$.50 – \$2.00) = \$17,400		

**PROBLEM 13-14 (CONTINUED)**

(a) (continued)

2018

Inventory of Premiums .....	594,000	
Cash .....		594,000
(To record the purchase of 330,000 banks at \$1.80 each)		
 Cash .....	823,080	
Sales Revenue.....		823,080
(To record the sale of 2,743,600 candy bars at \$0.30 each)		
 Cash (\$600,000 – \$150,000).....	450,000	
Estimated Liability for Premiums .....	17,400	
Premium Expense .....	72,600	
Inventory of mini piggy banks (300,000 x \$1.80) .....		540,000
(To record the redemption of 1,500,000 wrappers, the receipt of \$600,000 [(1,500,000 ÷ 5) X \$2.00], and the mailing of 300,000 banks.)		
 Calculation of premium expense:		
300,000 banks X \$1.80 =	\$540,000	
Postage—300,000 X \$0.50 =	<u>150,000</u>	
	690,000	
Less: Cash received—		
(1,500,000 ÷ 5) X \$2.00	<u>600,000</u>	
Premium expense for banks issued	90,000	
Less: Outstanding claims at 12/31/18 charged to 2017 but redeemed in 2018	<u>17,400</u>	
Premium expense chargeable to 2018	<u>\$ 72,600</u>	
 Premium Expense .....	21,000*	
Estimated Liability for Premiums .....		21,000
*(350,000 ÷ 5) X (\$1.80 + \$.50 – \$2.00) = \$21,000		

**PROBLEM 13-14 (CONTINUED)**

(b) Account	Amount		Classification
	2017	2018	
Inventory of Premiums	\$18,000 <sup>1</sup>	\$72,000 <sup>2</sup>	Current asset
Estimated Liability for Premiums	17,400	21,000	Current liability
Premium Expense	89,400 <sup>3</sup>	93,600 <sup>4</sup>	Selling expense

$$^1 \quad \$1.80 \times (250,000 - 240,000)$$

$$^2 \quad \$1.80 \times (10,000 + 330,000 - 300,000)$$

$$^3 \quad \$72,000 + \$17,400$$

$$^4 \quad \$72,600 + \$21,000$$

- (c) The Estimated Liability for Premiums is not a financial liability since it is an obligation to customers to provide a mini piggy bank, not a contractual obligation to pay out cash or other financial assets. The fact that there are some cash amounts involved in its measurement does not make it a financial liability.
- (d) The additional information that would be required to record the promotional premium program transactions using the revenue approach under IFRS would include what portion of the sales price of chocolate bars represented the performance obligation relating to the mini piggy bank premium.

**PROBLEM 13-15**

(a)													
1.	Sales of musical instruments and sound equipment												
	\$5,400,000												
	Estimated warranty rate												
	Warranty expense for 2017												
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;"></td> <td style="text-align: right;">.02</td> </tr> <tr> <td></td> <td style="text-align: right;"><u>\$ 108,000</u></td> </tr> </table>		.02		<u>\$ 108,000</u>								
	.02												
	<u>\$ 108,000</u>												
2.	Warranty liability —1/1/17												
	\$ 136,000												
	2017 warranty expense (Requirement 1)												
	Subtotal												
	Actual warranty costs during 2017												
	Warranty liability —12/31/17												
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;"></td> <td style="text-align: right;">108,000</td> </tr> <tr> <td></td> <td style="text-align: right;"><u>244,000</u></td> </tr> <tr> <td></td> <td style="text-align: right;">164,000</td> </tr> <tr> <td></td> <td style="text-align: right;"><u>\$ 80,000</u></td> </tr> </table>		108,000		<u>244,000</u>		164,000		<u>\$ 80,000</u>				
	108,000												
	<u>244,000</u>												
	164,000												
	<u>\$ 80,000</u>												
3.	Points issued (1 coupon/\$1 sale)												
	1,800,000												
	Estimated redemption rate												
	Estimated number of points to be redeemed												
	Exchange rate (200 points for speakers)												
	Estimated number of speakers to be issued												
	Net cost of speakers (\$34 – \$20)												
	Premium expense for 2017												
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;"></td> <td style="text-align: right;">.60</td> </tr> <tr> <td></td> <td style="text-align: right;">1,080,000</td> </tr> <tr> <td></td> <td style="text-align: right;"><u>÷ 200</u></td> </tr> <tr> <td></td> <td style="text-align: right;">5,400</td> </tr> <tr> <td></td> <td style="text-align: right;">14</td> </tr> <tr> <td></td> <td style="text-align: right;"><u>\$ 75,600</u></td> </tr> </table>		.60		1,080,000		<u>÷ 200</u>		5,400		14		<u>\$ 75,600</u>
	.60												
	1,080,000												
	<u>÷ 200</u>												
	5,400												
	14												
	<u>\$ 75,600</u>												
4.	Inventory of premiums—1/1/17												
	\$ 39,950												
	Premium speakers purchased during 2017												
	(6,500 X \$34)												
	Premium speakers available												
	Premium speakers exchanged for points												
	during 2017 (1,200,000/200 X \$34)												
	Inventory of premiums—12/31/17												
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;"></td> <td style="text-align: right;">221,000</td> </tr> <tr> <td></td> <td style="text-align: right;"><u>260,950</u></td> </tr> <tr> <td></td> <td style="text-align: right;">\$ 204,000</td> </tr> <tr> <td></td> <td style="text-align: right;"><u>\$ 56,950</u></td> </tr> </table>		221,000		<u>260,950</u>		\$ 204,000		<u>\$ 56,950</u>				
	221,000												
	<u>260,950</u>												
	\$ 204,000												
	<u>\$ 56,950</u>												
5.	Estimated liability for premiums—1/1/17												
	\$ 44,800												
	2017 premium expense (Requirement 3)												
	Subtotal												
	Actual redemptions during 2017												
	[1,200,000/200 X (\$34 – \$20)]												
	Estimated liability for premiums—12/31/17												
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;"></td> <td style="text-align: right;">75,600</td> </tr> <tr> <td></td> <td style="text-align: right;"><u>120,400</u></td> </tr> <tr> <td></td> <td style="text-align: right;">84,000</td> </tr> <tr> <td></td> <td style="text-align: right;"><u>\$ 36,400</u></td> </tr> </table>		75,600		<u>120,400</u>		84,000		<u>\$ 36,400</u>				
	75,600												
	<u>120,400</u>												
	84,000												
	<u>\$ 36,400</u>												



**PROBLEM 13-15 (CONTINUED)**

- (b) Under IFRS, the warranty and premium offers are considered revenue arrangements with multiple deliverables and the service-type warranty approach is used to account for the warranties, a portion of the sales revenue from musical instruments and sound equipment, and recorded and sheet music will have to be deferred as unearned revenue. This revenue will be recognized over the term of the warranty period and premium offer period as revenue as points are redeemed and warranties are honoured. Management will need to determine what portion of the sales price represents revenue from warranties and premiums.

When the musical instruments and sound equipment are sold, a portion of the sales price will be credited to Unearned Warranty Revenue. For the premiums, a portion of the recorded and sheet music sales will be credited to Unearned Revenue.

As warranties are claimed a portion of the Unearned Warranty Revenue will be earned and will be transferred to the income statement. Actual warranty costs will be recorded as warranty expense.

As points for premiums are redeemed, a portion of the Unearned Revenue will be earned and will be transferred to the income statement. The premium expense (or cost of premium) will also be transferred to the income statement.

**PROBLEM 13-16**

(a)		
Cash .....	30,000	
Unearned Guarantee Revenue .....		30,000
Accounts Receivable .....	15,000	
Cash .....		15,000
Unearned Guarantee Revenue .....	10,000	
Guarantee Revenue .....		10,000
(\$30,000 ÷ 3)		
Loss on Guarantee* .....	30,000	
Liability for Guarantee .....		30,000

\* This entry is based on management's determination of the likelihood of loss in providing guarantees for Hutter. Since the collateral for the loan involves rights on unproven technology, it appears that the possibility of loss is likely. Accounts receivable was not debited since Dungannon has not yet made payment on Hutter's debt. They do not have a balance owing from Hutter for this amount.

The Guarantee Revenue has been recognized on a straight-line basis. Company management may consider another basis more appropriate, such as an amount proportionate to the amount of debt being covered by the guarantee.

Dungannon will also need to assess the collectibility of the account receivable and include it in its bad debt expense and allowance for doubtful accounts determination as part of its adjusting entries.

**PROBLEM 13-16 (CONTINUED)**

(b) Dungannon needs to disclose the following information related to its guarantees:

- The nature of the guarantee, how it arose, and circumstances that require the guarantor to perform under the guarantee;
- The maximum potential amount of future payments that the guarantor could be required to make, without any reduction for receivable amounts;
- The nature and extent of any recourse provisions or collateral held;
- The carrying amount of the liability, if any.

Disclosure in Dungannon's notes:

The company provides guarantees to certain customers whereby the company assumes their long-term debt in the event of non-payment to their creditors. The guarantee arrangement covers a three-year period from the date of the agreement. The maximum potential amount of future payments that the Company could be required to make is \$XXXXX. The Company does not have any recourse provisions or collateral against the current and potential liabilities arising from these guarantees. The Company has made payments under the guarantee of \$15,000 and has accrued an additional \$30,000 for the same customer. The possibility of further loss from this customer cannot be determined at this point. All other customers under guarantee have honoured their debt arrangements and the Company believes the possibility of loss under guarantees to these other customers to be unlikely.

**PROBLEM 13-17****(a) 1. (1) ASPE – Section 3290**

It is likely a loss and liability have been incurred and a reasonable estimate can be made of the amount. The loss and liability should be recorded as follows:

Litigation Expense .....	800,000	
Litigation Liability .....		800,000

**Note to the Financial Statements**

The company is a defendant in a personal injury suit for \$4,000,000. The company is charging the year of the accident with \$800,000 in estimated losses, which represents the amount the company estimates will likely be awarded.

**(2) IFRS**

IAS 37 would be similar to the ASPE standard except that under IAS 37, provisions are required for situations where it is “probable” or “more likely than not” that a present obligation exists. This is a somewhat lower hurdle than the “likely” required under ASPE. If the amount cannot be measured reliably, no liability is recognized under IFRS either; however, the standard indicates that it is only in very rare circumstances that this would be the case. If recognized, IAS 37 requires that the best estimate and an “expected value” method be used to measure the liability. This approach assigns weights to the possible outcomes according to their associated probabilities when measuring the amount of the provision, if a range of possible amounts is available.

**PROBLEM 13-17 (CONTINUED)**

(a) (continued)

## 2. (1) ASPE – Section 3290

Because the cause for litigation occurred before the date of the financial statements and because an unfavourable outcome is likely and reasonably estimable, Hamilton Airlines should report a loss and a liability in the December 31, 2017, financial statements. The loss and liability might be recorded as follows:

Litigation expense .....	3,000,000	
Litigation Liability .....		3,000,000
(\$5,000,000 X 60%)		

Note to the Financial Statements

Due to an accident that occurred during 2017, the company is a defendant in personal injury suits totalling \$5,000,000. The company is charging the year of the casualty with management's best estimate for the total expected losses, which represents the amount the company estimates will finally be awarded.

## (2) IFRS

IAS 37 would be similar to the ASPE standard with the same exceptions for IAS 37 as noted in part (a)(1)(2) above.

(b) Hamilton Airlines need not establish a liability for risk of loss from lack of insurance coverage itself. *CPA Canada Handbook for Private Enterprises* Section 3290 does not require or allow the establishment of a liability for expected future injury to others or damage to the property of others even if the amount of the losses is reasonably estimable. IAS 37 mirrors the ASPE standards in this situation. The cause for a loss must occur on or before the balance sheet date for a loss contingency to be recorded. However, the fact that Hamilton is self-insured should be disclosed in a note.

**PROBLEM 13-17 (CONTINUED)**

- (c) It is management's responsibility to prepare the financial statements. Audited financial statements are preceded by a statement of management's responsibilities in this respect, which is also reiterated in the auditor's report. Included in management's responsibility is the task of arriving at the proper accounting treatment for contingent losses. At the end of the fiscal year, management makes an assessment of the likelihood of occurrence concerning the outcome of any future event relating to the cases and applies a reasonable measurement of the dollar amount of the probable judgement or settlement out of court.

Once management's evaluation of each claim or case is arrived at, the company lawyer is contacted and asked to comment on the completeness, assessment and measurement of all claims or possible claims. The lawyer's response to this request is provided to the auditor as evidence to support the measurement and disclosure requirements concerning all outstanding contingent liabilities.

Depending on the in house expertise available to the Hamilton Airlines, management will arrive at the estimates on its own. Should that expertise not be available, consultation with the litigation lawyer on the status of each matter will be required to perform the outcome assessment and measurement for financial reporting purposes.

## CASE

See the Case Primer on the Student website, as well as the Summary of the Case Primer in the front of the text. Note that the first few chapters in volume 1 lay the foundation for financial reporting decision making.

### CA 13-1 ABC AIRLINES

#### Overview

The company is in a highly competitive and risky industry. The economic environment over the past few years has caused many airlines to restructure or fold in the face of declining sales, increased competition, and falling seat prices. ABC has held its own by undergoing two restructurings, the most recent of which revolves around increases in network profitability and cutting costs. Even so, the company is in a very precarious position with a long-term debt to equity ratio of 3.2 to 1 and a current ratio of .6 to 1. Losses for the past two years have been significant at close to \$200 million each year.

Users of the financial statements will be existing creditors and shareholders who will be monitoring the liquidity of the company given the ratios identified above. Employees, who are also shareholders, will be watching the statements for information about financial and job stability. This is a private company and that ASPE is a constraint due to the fact that the users will want the most useful information. Note that as a private entity, the company may elect to follow IFRS. The company is interested in understanding any differences between IFRS and ASPE.

Management will be concerned with full disclosure of the situation, due to the liquidity issues which are apparent in the financial statements and yet will also be concerned with assuring the stakeholders that the company will continue to operate.

## CA 13-1 ABC AIRLINES (CONTINUED)

### Analysis and Recommendations

The issue here is accounting for the free flights. As already noted, these flights are similar to the Frequent Flyer Points.

One option is to treat them the same as the Frequent Flyer Points since they are, in substance, the same, i.e., the more you fly, the more free flights you earn. In this case, the company could defer revenues to cover the potential future flights. In essence, the full amount of revenues from the ticket sold includes the flight taken and a potential future flight. Although ASPE does not explicitly refer to these types of plans, IFRS explicitly deals with this in IFRIC 13 and requires accounting for the transaction as unearned revenue as part of a multiple element arrangement.

In the notes to the financial statements, ABC assumes that there is a cost to providing these free flights, which must be accrued and matched with the revenues. The revenues in question would be the revenues from the paid flights that would be recorded in the current period. The cost of the free flights should be tied to the current revenues as they are seen as an inducement to buy tickets and are therefore like advertising costs. Also, the program creates a liability to the customers since, as the customers fly more, ABC has a duty to them that cannot be avoided and the event obligating ABC is the fact that the customers have taken the flight. There is a measurement issue here since not all customers will complete the requirement for a free flight, i.e., five flights and, even if they do, not all customers will indeed take the free flight. ABC does have some history with these types of programs and this might help provide evidence as to the amount to be estimated although this is a new and different program. This treatment would not be used under IFRS as noted above.



### **CA 13-1 ABC AIRLINES (CONTINUED)**

Another option is to note disclose the program only. This option would be based on the fact that there are minimal incremental costs for free flights. The plane will be flying anyway. In addition, it is difficult to measure how many people will earn and actually take these free flights. The only possible cost might be if a paying customer is bumped. Given increased competition, it is unlikely that the planes will always be full and ABC might protect itself against this by only allowing the free flights on certain flights that might not normally ever reach capacity. Note, however, that part of the latest restructuring strategy is to increase network profitability, which means filling up each plane. This might result in paying passengers being bumped in the future and therefore a real cost.

Conservative accounting (deferral of revenues) in this situation, along with full disclosure, would be prudent for the company.

## INTEGRATED CASES

### IC 13-1 ENVIROCOMPANY LIMITED

#### Overview

This is a public entity (shares trade on a public stock exchange) and therefore, the statements will follow IFRS. The shareholders may not want the problem overemphasized since it might drive the share price down. Employees will likely feel the same way since they could lose their jobs if the company were forced to close. Management might be reluctant to disclose too much for the same reasons, especially until they figure out an acceptable/feasible plan of action. Furthermore, any negative disclosures reflect poor stewardship. Potential investors, on the other hand, would want full disclosure in order to assess the risks before investing. Whatever is disclosed could be used against the company by the public “at large” in an effort to protect themselves and the environment and also by lawyers in any lawsuits.

Other users would be the government environmental agencies who might use the information against EL. The Board of Directors might resist disclosures that imply negligence or guilt since they might be held personally liable.

The controller will have to ensure transparency.

## IC 13-1 ENVIROCOMPANY LIMITED (CONTINUED)

### Analysis and Recommendations

#### **Issue:** lawsuit

Based on a strict interpretation of GAAP, there is no liability for potential lawsuits relating to the pollutants until the company is sued. Until that time there is no basis to estimate the potential loss and to make an accrual. Likewise, until the person actually sues the company, and a court rules against the company, there is an opportunity to avoid the potential obligation (i.e., hire good lawyers, present a good defence). The event that potentially obligates the entity may be the act of polluting, the act of a neighbouring company polluting or the act of the person getting sick and, therefore, this may have already happened. However, as noted above, the obligation has not yet necessarily been established although the lawyers have acknowledged the potential for a class action suit. IFRS requires accrual of a potential loss if occurrence of a future event is probable (more likely than not) and measurable. It does not sound as if this is the case here.

Under ASPE, the threshold for the recording of a liability is more conservative. The accrual of a loss is recorded if the occurrence of a future confirming event is “likely,” meaning it has a high probability, and it is measurable. ASPE could be used if EL were a private company. Public knowledge of the company’s financial position would not be known, but the bank financing the business would be kept informed on a regular basis. If assets are used as security for loans, and these assets are nearing the end of their useful lives, the bank would want to know the specifics of any modernization plans for the pulp and paper mill.

## IC 13-1 ENVIROCOMPANY LIMITED (CONTINUED)

Note disclosure might be prudent; however, given that the person has only threatened to sue and has not actually done it, generally this would not be disclosed, as it is difficult to assess the probability that the person or others will actually sue. What about potential investors? Does management in all good conscience have to warn them? Also, if management is aware that their company is responsible for pollutants that are causing birth defects and related issues, they have an ethical obligation to fix the related problems. Given the increasing onus on Boards of Directors to take full responsibility for the actions of the company, should they disclose the problem in order to protect themselves?

Regarding the specific lawsuit threat, it is likely unnecessary to disclose it for the above-noted reasons (primarily the uncertainty and the fact that the loss from a potential lawsuit is not measurable). However, regarding the larger problem (i.e., the inescapable fact that the pollution is harmful), it could be argued that they should disclose.

In conclusion, no disclosure is required since, at best, the threatened lawsuit is a contingent liability and it could be argued that it is unlikely that the company will suffer a material loss from it, especially since EL's insurance will cover up to \$5 million. There is no reason to alarm people unless they are aware that there is a real problem, and no reason to overemphasize this episode to the point of putting the company out of business.

**Issue:** asset retirement obligation/impairment:

Little detail is given in the case regarding whether the company has an asset retirement obligation. Under IFRS, the company would have to accrue an obligation if there was a legal obligation or a constructive obligation. Similarly, although little information is given in the case, and the old assets likely have small carrying amounts, the company should consider whether the assets are impaired.

## IC 13-2 LANDFILL LIMITED

### Overview

LL is in the waste disposal business and as such, environmental concerns increase the business risk. The company has many users of its financial statements. Nova Bank, which financed the acquisitions, will use the financial statements to assess cash flows. The government might use the financial statements to assess whether the company is in compliance with regulations with respect to closure and post-closure activities, etc. The financial statements will also be used by existing and potential customers who will look to see if LL is stable and in compliance with environmental standards prior to entering into waste removal contracts. A final user is the purchaser's lawyers who will use the financial statements to perhaps assess what the company is worth in terms of negotiating a potential settlement regarding the toxins that are leaking (since LL has guaranteed toxin-free land).

The fact that the financial statements are being audited is an indication that many stakeholders are interested in reliable and relevant information about the company. As a private company, LL may use ASPE or IFRS. Management is interested in any differences between the two.

As the auditor, this is a new client and so the risk is greater, especially given the number of users and the potential lawsuit. Care must be taken to ensure that LL is not overstating income or net assets.

## IC 13-2 LANDFILL LIMITED (CONTINUED)

### Analysis and recommendations

**Issue:** Asset retirement obligations/impairment

Since the government regulations require capping, closure, and post-closure activities, a legal obligation exists and a liability must be recognized as soon as measurable. The obligation would be measured at the best estimate of the expenditure required to settle the present obligation.

It is also prudent to ensure that the liability is accrued since LL must pay for cleanup where toxins are found subsequent to the sale of land. There is an additional risk here since the land sold by LL recently has been found to contain toxins.

The amount would be added to the cost of the land. The treatment would essentially be the same under ASPE and IFRS however, the measurement might differ. Under ASPE, if there is a range of values, the company would pick the most likely estimate within the range unless this amount was not determinable. In that case the lowest amount in the range would be accrued. Under IFRS, the amount would be measured at the probability-weighted expected value.

Care should be taken to assess the existing landfill sites to ensure that the value is not impaired. The potential lawsuit represents a change in circumstances that might signal impairment.

**IC 13-2 LANDFILL LIMITED (CONTINUED)****Issue:** Depreciation

Depreciate sites	No depreciation
<ul style="list-style-type: none"> <li>- The garbage sites have a life of 20 years (finite life).</li> <li>- Since they contribute to revenues, the cost should be allocated to the periods in which revenues are generated (matching).</li> <li>- Since varying amounts of garbage are dumped, perhaps a unit of production type method might be used. This will allow the costs to be better matched with the revenues generated.</li> <li>- Although the land holds its value, it is difficult to measure salvage value.</li> <li>- Given the potential liability for cleanup costs, the land may be worthless at the end of its life if the company does not manage the environmental issues properly.</li> <li>- The current lawsuit would support this.</li> </ul>	<ul style="list-style-type: none"> <li>- The land has historically held its value (as long as there are no toxins present) and therefore, an estimate of salvage value might be based on past land values.</li> <li>- Currently, it is in the best interest of the company to deal with environmental issues and ensure no toxins given that existing and future customers assess this on an ongoing basis. The bank will also watch for this since toxins will destroy the value.</li> <li>- The government will assess for compliance with regulations.</li> </ul>

It might be more prudent to depreciate the land values. Environmental standards change (and are increasing) and therefore, given the potential liability if toxins are subsequently found, the value of the land could be completely eliminated.

**IC 13-2 LANDFILL LIMITED (CONTINUED)****Issue:** Potential liabilities relating to the land that has been sold

Disclose	Accrue
<ul style="list-style-type: none"> <li>- The issue of toxins being discovered must at least be disclosed as it could be material.</li> <li>- The company has guaranteed that there are no toxins and has agreed to pay if there are. The existence of the toxins is yet to be proved.</li> <li>- The question is also one of measurement. Given the early stages of the notification by the lawyers, it is unlikely that the company will be able to measure the potential cost.</li> <li>- Disclosing or accruing a specific amount might prejudice the company's position in terms of how much is owed to the purchaser.</li> </ul>	<ul style="list-style-type: none"> <li>- The company must reflect the potential costs in the financial statements and must try to estimate as the finding of toxins is very material to users (the bank, purchaser and potential customers).</li> <li>- Even though the purchaser has yet to prove the existence of toxins, it might be argued that the company has a constructive obligation (it works hard to signal that it is responsible and environmentally friendly).</li> <li>- IFRS requires accrual if the obligation is probable and ASPE requires accrual if it is likely.</li> <li>- Measurement may also differ under ASPE versus IFRS as noted above.</li> </ul>

It would be more prudent to accrue the costs if they are measurable. The company should contact the lawyers and verify the status.



## IC 13-3 CANDELABRA LIMITED

### Overview

- Two major users (creditors (bond) and pension company) and therefore GAAP is likely a constraint (the bond would imply that the company is publicly accountable if the bonds are traded in a public market; and the pension company shareholder may insist that the company follow IFRS or ASPE)
- As a private company, if the bonds are not publicly traded, it may use IFRS as an accounting policy choice or ASPE – differences will be noted between the two
- Revenues are steadily increasing – may be pressure to preserve trend
- The bondholder is a key user, and the bond contains a debt covenant – sensitive ratio since company is almost at the limit (debt/equity = < 2:1)
- Issued shares to fund – held by a large pension company who will want to assess value of investment – key user
- The auditor may want to ensure full disclosure

### Analysis and recommendations

**Issue:** Bond – 100 years

This is clearly a liability since there is an obligation to deliver cash in the form of interest payments and ultimate principal payment.

**IC 13-3 CANDELABRA LIMITED (CONTINUED)****Issue:** Carbon credits

Recognize	Do not recognize
<ul style="list-style-type: none"> <li>- Represents an asset to the company since allows them to produce pollution without incurring a penalty.</li> <li>- Credits trade on a market therefore measurable value.</li> <li>- The credits given by the government are essentially government grants which should be reflected in the financial statements.</li> <li>- If recognized, is this a derivative instrument or not? If so, would value at fair value and gains/losses would be booked to income (note that this is getting ahead as derivatives are discussed in chapter 16). Note that the contracts meet the definition of a derivative since their value changes as the supply of carbon dioxide changes, little was paid for the credits upfront and they will likely be settled in future (IFRS). Under ASPE derivatives accounting would not apply since these are not exchange-traded futures and therefore are not covered by Section 3856)</li> </ul>	<ul style="list-style-type: none"> <li>- No cost to the company for the allocated credits.</li> <li>- Under the historical cost principle – would be no laid down cost.</li> <li>- Therefore valued at \$0.</li> <li>- It may be difficult to measure since the government established market place is informal and may not have many transactions.</li> </ul>

These definitely represent an asset to the company and therefore, in the interests of transparency, the entity should recognize them. Since the credits trade on a market and meet the definition of a derivative, they should be valued at fair value (measurable) if IFRS is followed. Note that recognition of positive value will improve debt to equity ratio. If ASPE is followed, recognize the asset as a government grant but don't revalue it subsequently.

**IC 13-3 CANDELABRA LIMITED (CONTINUED)****Issue: Cave**

Capitalize costs	Expense
<ul style="list-style-type: none"> <li>- Very valuable if feasible (future benefit).</li> <li>- Already storing carbon dioxide there on a test basis so could argue technically feasible.</li> <li>- Strong motivation to succeed here since produce lots of carbon dioxide and will otherwise have to pay to purchase carbon credits. Also – have committed a significant amount of funds to this project and so have a vested interest in its success and almost reaching the completion stages.</li> </ul>	<ul style="list-style-type: none"> <li>- Have not established feasibility yet per engineers.</li> <li>- This is clearly a matter of judgement and there is significant uncertainty.</li> <li>- There is no evidence that future benefits exist.</li> </ul>

Should not recognize as an asset yet, as the engineers are the experts in terms of feasibility and they are suggesting that there is uncertainty.

**Issue: Shares**

Shares are redeemable but only at option of company – so there is no obligation to pay cash. Therefore, shares are equity.

## RESEARCH AND ANALYSIS

### RA 13-1 Empire Company Limited

- (a) Note 1 to Empire's financial statements indicates that the company's main businesses are food retailing – primarily under the Sobeys logo, and real estate related to the retail operations.
- (b) Note 3q provides information about Empire's loyalty programs. Until the 4<sup>th</sup> quarter of the company's 2015 year, the program allowed members to earn and accumulate points based on their purchases. These points could then be redeemed for cash discounts on subsequent grocery purchases or to acquire other products or services. Empire accounted for this program as a revenue arrangement with multiple deliverables. That is, it bifurcated or allocated the grocery sales amount into two amounts – one part being the revenue on the current transaction and the other being the unearned revenue associated with the future redemption of the awards. The amount allocated to unearned revenue was the fair value of the points expected to be redeemed in the future. The unearned, or deferred, revenue was reported in accounts payable and accrued liabilities, in current liabilities on Empire's balance sheet.

Empire now uses the AIR MILES<sup>®</sup> customer loyalty program. Under this arrangement, customers earn AIR MILES<sup>R</sup> points based on their in-store purchases and these points are redeemable against items such as future purchases. Under this program, Empire pays another organization (AIR MILES<sup>R</sup>) a fee for each point earned by the customer, and the other organization administers the program for Empire and the many other corporations that have joined this program. This is a loyalty program used by many retailers. No further information is provided in the notes to the financial statements about how this plan will be accounted for. Because the current sales attract the awarding of "miles" that Empire pays another company for when the miles are awarded, and because the other company takes on the responsibility and obligation to make good on those miles, Empire probably accounts for the cost of the miles to them as an expense or contra sales account in the period of the original sale. When a customer later pays for products with air miles instead of cash, for example, Empire most likely has a claim/receivable from the AIR MILES organization which is credited to expense or the contra sales account or to Sales directly. The resulting claim is not likely for the full value of the cash foregone in the sale paid for in part by the miles, so the period of redemption also bears part of the cost of the loyalty program. Other methods of accounting may well be used, but the method described attributes the sales to the two different accounting periods and the costs of the program to both as well.

## RA 13-1 Empire Company Limited (CONTINUED)

- (c) Empire reported Provisions in current liabilities of \$122.1 million and another \$142.9 million in other (long-term) liabilities, for a total of \$265.0 million at May 2, 2015. The company recognizes provisions “when there is a present legal or constructive obligation as a result of a past event,” where it is probable that a transfer of economic benefits will be required, and the related obligation can be reliably measured. Where the obligations won’t be met currently, the amount of the provision is discounted using a rate that takes into account the time value of money and the specific risks associated with the obligation, where material. Over time, the company recognizes the increase (accretion) of the liability as a finance expense in net income.

Note 14 explains that Empire’s provisions relate to onerous lease contracts, where the unavoidable costs of fulfilling the obligations are higher than the future benefits expected from the contracts; to legal costs associated with outstanding claims that resulted from ordinary business operations; to environmental costs related to locations requiring environmental restoration; to provisions for restructuring costs related to company initiatives to improve financial performance by lowering costs, particularly having to do with the recent acquisition and integration of the Canada Safeway business; and to other obligations such as those under agreements with Crombie REIT.

Under IAS 37, a “provision” is defined as “a liability of uncertain timing or amount.” In all the situations where Empire has recognized a provision, the company has a present legal or constructive obligation resulting from a past event requiring a probable future transfer of economic benefits (a liability), the associated amounts required estimation and reliable measurements could be made of the liability amount. In most cases, the timing of when the obligation is required to be satisfied is also uncertain.

- (d) As indicated in (c) above, when the obligation won’t be met until some future date, measurement of the provision requires that it be discounted to take into account the time value of money. Note that the provision for legal fees has not been increased for the interest factor, likely because all of it is considered a current obligation. For all the others, the provision has been increased due to the longer term nature of the obligation.

**RA 13-2 CANADIAN TIRE CORPORATION, LIMITED.**

(a) Canadian Tire's current liabilities include the following amounts:

(\$ millions)	January 3, 2015 Balance
Bank indebtedness	\$ 14.3
Deposits	950.7
Trade and other payables	1,961.2
Provisions	206.0
Short-term borrowings	199.8
Loans payable	604.4
Income taxes payable	54.9
Current portion of long-term debt	<u>587.5</u>
	<u>\$4,578.8</u>

"Trade and other payables" on the consolidated balance sheet includes liabilities such as deferred revenue, insurance reserves, and other, mainly sales taxes payable. The majority of the \$1,961.2, however, relates to trade payables and accrued financial liabilities. This amount most likely relates to regular trade accounts payable for inventory purchases, office supplies and utility costs, and also to accrued liabilities for wages and salaries payable, dividends payable, vacation pay accruals, and interest payable.

The deposits, a significant part of the current liabilities, are related to the financial services (including a bank) part of Canadian Tire's business activities and represent the monies owed to various parties who hold investment accounts with its banking subsidiary. This is made up of broker deposits and retail deposits. Broker deposits originate when the company issues GICs (guaranteed investment certificates) to brokers instead of directly to retail customers. Retail deposits include amounts held for, and therefore owed to, retail clients in high interest savings accounts, GICs and tax free savings accounts.

**RA 13-2 CANADIAN TIRE (CONTINUED)**

(b) (1) Working capital = Current assets less current liabilities.

\$ In millions	2014	2013
Current assets	8,510.2	7,977.8
Current liabilities	4,578.8	4,322.1
Working capital	3,931.4	3,655.7

(2) Acid-test ratio = 
$$\frac{\text{Cash + short-term investments + trade and other receivables + loans receivable}}{\text{Current liabilities}}$$

2014: 1.47 times = 
$$\frac{\$662.1 + \$289.1 + \$880.2 + \$4,905.5}{\$4,578.8}$$

2013: 1.48 times = 
$$\frac{\$643.2 + \$416.6 + \$758.5 + \$4,569.7}{\$4,322.1}$$

(3) Current ratio = 
$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

2014: 1.86 times = 
$$\frac{\$8,510.2}{\$4,578.8}$$

2013: 1.85 times = 
$$\frac{\$7,977.8}{\$4,322.1}$$

(4) Five-year history:

	2014	2013	2012	2011	2010
Current assets	8,510.2	7,977.8	7,796.1	6,956.6	6,549.2
Current liabilities	4,578.8	4,322.1	4,671.6	4,153.0	3,251.5
Working capital	3,931.4	3,655.7	3,124.5	2,803.6	3,297.7
Current ratio	1.86	1.85	1.67	1.68	2.01

**RA 13-2 CANADIAN TIRE (CONTINUED)**

(b) (continued)

(4) (continued)

Canadian Tire Corporation's liquidity is good in general, since it has sufficient current assets to meet current liabilities. Its sound working capital position is reflected in its current ratio. Insufficient information is provided to prepare the acid-test ratios for the five-year period. Its liquidity has been fluctuating within a fairly narrow range for the last 5 years. The current ratio increased in 2014 and 2013 over the previous two-year period, but hasn't regained the current ratio position that it had attained in 2010.

$$(5) \quad \text{Inventory turnover} = \frac{\text{COGS}^*}{\text{Average inventory}}$$

$$2014: \quad 5.17 \text{ times} = \frac{\$8,033.2}{(\$1,623.8 + \$1,481.0)/2}$$

\* from note 31 of financial statements.

The inventory and receivables tend to be a large proportion of the current assets used in assessing liquidity using working capital and the current ratio. Calculating the turnover of both the receivables and inventory provides information useful in assessing the current ratio by indicating how long it takes to convert the company's inventory into receivables and then into cash. The turnover ratio also provides information about the legitimacy of including inventory in the determination of the current ratio and whether the quick ratio would be a better indicator of liquidity.

The inventory turnover provides information about the saleability of the inventory and the number of days it takes to sell on average. Canadian Tire's turnover of 5.17 times represents an average of 71 days that the inventory is held before being sold. The company sells many different types of inventory items, and the turnover figure calculated is an average for all inventories. This seems relatively high for a retail company, but calculating the amount over several years and comparing it to other companies in the same industry would provide more meaningful information. Canadian Tire's ratio makes it important to calculate a quick ratio as well.



## RA 13-2 CANADIAN TIRE (CONTINUED)

### (b) (continued)

In the case of receivables, the company has several types of receivables including credit card (MasterCard) receivables and loans from dealers (see Note 11). Many of these receivables may not arise from sales in Canadian Tire retail outlets, since the credit card can be used with many different merchants. The loans from associates do not relate to sales. As a result, a meaningful accounts receivable turnover ratio cannot be calculated. However, the large amount of cash that will be collected from these receivables and loans aids in paying current liabilities and increases working capital and current ratios.

(c) The current portion of long-term debt (all numbers are in \$ millions and were found in Note 25) at January 3, 2015 is \$587.5. This amount represents the portion of long-term debt that is payable by the company within the next 12 months, from current assets. The amount would include only the principal portion of the debt and would not include interest payable during the coming year. In this case, the current portion amount of \$587.5 is made up primarily of amounts relating to the company's Senior (\$249.7) and Subordinated (\$14.6) and Medium-term (\$299.3) notes payable as well as finance lease obligations (\$20.7 million).

If the company's long-term debt does not increase, the current portion of long-term debt will be a very low \$17.0 on the 2015 end-of-year balance sheet. This amount represents only finance lease obligations payable in 2016. This was determined by reviewing the maturity dates of all the outstanding items of long-term debt for those maturing in 2016. This is a very low amount relative to other years and the company should have no difficulty with the relatively small amount of cash required.

### (d) Commitments and Contingencies:

Commitments: Note 36 on Operating Leases and Note 37 on Guarantees and Commitments provide information on the company's commitments. Canadian Tire is the lessee in operating leases and is committed to future lease payments totalling \$2,081.1 million as of January 3, 2015. The company also reports commitments of \$164.6 million related to capital expenditures for the acquisition of property and equipment and intangible assets.

Contingencies: Note 37 also provides information related to contingencies, most of which are in the nature of guarantees. These include:

**RA 13-2 CANADIAN TIRE (CONTINUED)**

(d) (continued)

- Standby letters of credit for Dealers' loans from a third party.
- Indemnification to purchasers of the company's businesses or property that it will cover costs relating to any covenants, breaches of representations and warranties resulting from its past conduct, including those related to environmental remediation.
- Guarantees of lease payments by sublessees of space Canadian Tire had leased and vacated before the lease terms had ended.
- Third party financial guarantees of the debt of certain Dealers.
- Indemnification of its lenders under its credit facilities for any increased costs due to changes in laws and regulations.
- Other indemnification agreements to compensate various counterparties for additional costs incurred as a result of specific events.

Contingent liabilities are required to be recorded as liabilities in the financial statements when the criteria for accrual are met. If the criteria are not met, note disclosure is required. Wherever it can be measured, Canadian Tire discloses the maximum potential liability that could result from these guarantees. However, except for the agreements entered into to buy back franchise-owned merchandise inventory if the banks foreclose on any of the company's franchisees, the company indicates that no amounts have been accrued in the consolidated financial statements with respect to these guarantees and agreements. Management indicates that because no significant amounts have historically been paid under such guarantees, they deemed it was not necessary to accrue any amounts.

(e) Note 4 on Capital Management discloses the company's two key covenants:

- Maintain a specific minimum ratio of net tangible assets to the principal amount of all consolidated funded obligations (as defined in specific agreements)
- The company is also restricted on the amount of dividends and repurchases of shares that can be made in excess of accumulated net income over a defined period.

The company was in compliance with both of these covenants.

## RA 13-3 LUFTHANSA

(a) The current liabilities for Lufthansa are made up of the following amounts:

(in millions EUR)	2014	2014	2013	2013
	€	% of total	€	% of total
Other provisions	953	8.7	868	7.9
Borrowings	594	5.4	1,514	13.8
Trade payables and other financial liabilities	4,635	42.2	4,545	41.5
Liabilities from unused flight documents	2,848	26.0	2,635	24.0
Advance payments received, deferred income and other non-financial liabilities	924	8.4	964	8.8
Derivative financial instruments	766	7.0	183	1.7
Effective income tax obligations	228	2.1	247	2.3
Liabilities related to assets held for sale	26	.2	-0-	0.0
<b>Total</b>	<b>10,974</b>	<b>100.0</b>	<b>10,956</b>	<b>100.0</b>

As can be seen from the table, the trade payables and other financial liabilities, and liabilities for unused flights represent the largest proportion of the current liabilities in both years. The year over year comparisons of the percentages indicate that these percentages are fairly consistent from 2013 to 2014. The most significant changes are reflected in the 8.4 percentage point decrease in borrowings and the 5.3 percentage point increase in the derivatives.

(b) The notes provide further disclosure of the types of obligations included in the accounts as indicated below.

**Other provisions** (note 33) include: obligations under partial retirement contracts, other staff costs, obligation to return emissions certificates, onerous contracts, environmental restoration, legal proceedings, restructuring/severance payments, fixed-price customer maintenance contracts, maintenance of operating lease aircraft, warranties, and other provisions.

## RA 13-3 LUFTHANSA (CONTINUED)

**Trade payables and other (current) financial liabilities** (note 37) include: trade payables and other liabilities to affiliated companies, trade payables and other liabilities to other equity investments, trade payables to third parties, liabilities to banks, and other financial liabilities.

**Advance payments received, deferred income and other non-financial liabilities** (note 38) include: advance payments received, net debit balance of advance payments received and receivables from unfinished contracts, deferred income, and other non-financial liabilities.

**Liabilities from unused flight documents**, as outlined in note 2, are flights that have been sold, but not yet used. These coupons or tickets will be recognized as traffic revenue when used. Coupons that have not been used and are unlikely to be used in future, based on previous years' statistical data, are recognized as traffic revenue.

- (c) According to Note 33, employee benefit obligations under partial retirement contracts representing its underfunded benefit plan and other staff costs are included in Other Provisions. The provision for staff costs relate to anniversary bonuses, variable payment portions and other current obligations that are not detailed.

The environmental restoration obligations are estimated based on surveyors' reports and the clean-up is assumed to be fully completed within 10 years.

Note 38 also provides information about other accruals related to employee benefits as follows:

- Outstanding holiday allowance and overtime, and
- The current portion of fair value obligations under share-based remuneration agreements.

**RA 13-3 LUFTHANSA (CONTINUED)**

- (d) Note 33 provides a reconciliation of the Other Provisions between the opening and closing balances (although it does not split out the current and long-term portions). Reconciliation of the opening and closing balances:

	EUR millions
Opening balance – December 31, 2013	1,464
Changes in the consolidated companies	1
Currency translation differences	26
Utilization – obligations met	-687
New or added provisions	816
Interest added	7
Provisions reversed	-41
Transfers to other accounts	-19
Reclassifications under IFRS 5	-13
Closing balance – December 31, 2014	1,554

- (e) As explained in Note 2, the accumulated unused bonus miles are accounted for using the deferred revenue method under IFRIC 13 Customer Loyalty Programmes. The liability is measured based on estimates of the extent to which the miles are likely to be used for flights by airlines in the Lufthansa group. Lufthansa measures these miles at fair value. Fair value is based on the average amount that the air miles could be sold for separately taking into consideration the booking class and traffic region (for miles related to the company's own flights), and based on the price per mile (cost to Lufthansa) for miles to be used on flights with partner airlines. No provision is made for miles that are expected to lapse, based on past experience. Miles accumulated on the company's own flights are included in deferred revenue, and points collected from third parties are shown under other non-financial liabilities. A total of 209 billion miles were to be measured as of December 31, 2014. These resulted in deferred revenue of EUR 1,010 million and non-financial liabilities of EUR 675 million.
- (f) Under IFRS, contingent liabilities are not recognized as liabilities in the financial statements, but disclosures about the amounts of such contingencies are required unless the possibility of an outflow in settlement is remote. As explained in Note 39, the company has the following types of contingent liabilities that it could measure: guarantees, bills of exchange and cheque guarantees totalling EUR 889; warranty contracts of EUR 1,046 million in connection with creditors of joint ventures; provisions of collateral for third parties totalling EUR 47 million; legal risks of EUR 66 million; and other risks of EUR 55 million. In addition, the company indicates that other contingencies exist that would not meet the probability test.

**RA 13-3 LUFTHANSA (CONTINUED)**

- (g) Current borrowings, totalling EUR 594 million, relate to the liabilities owed to the banks of EUR 120 million and leasing liabilities and other loans of EUR 474 million. The leasing liabilities and other loans relate to finance leases and arrangements for aircraft financing.

## RA 13-4 MEMO TO CFO

(a) Memo prepared by: Ethical Accountant

Date: January 2018

ProVision Corporation  
December 31, 2017

### Issue 1: Warranties

During June of this year, the company began the manufacture and sales of a new line of dishwasher. Sales of 100,000 dishwashers during this period amounted to \$50,000,000. These dishwashers were sold with a one-year warranty, with a warranty cost estimated on average to be \$25 per appliance for a total estimated cost of \$2,500,000. Management indicates that similar warranties are available for sale for \$75.

As of the balance sheet date, ProVision has paid out \$1,000,000 in warranty expenditures and these have been expensed in the income statement. No recognition of any further liability associated with the warranty has yet been made.

There are two kinds of warranties for accounting purposes, each with its own method of recognizing the associated costs, revenues and liabilities: the service-type and the assurance-type.

Under the service-type warranty, the assumption is that the \$500 price charged for each dishwasher covers two separate performance obligations on our part. That is, the sale of each dishwasher is a bundled sale which includes (1) providing the dishwasher and (2) providing the warranty service which expires one year from the date of sale. Therefore, the \$500 sale amount is bifurcated/split out into two different types of revenue. The revenue related to the warranty service of \$75 per unit sold is deferred at the point of sale, the costs of making good on the warranties are recognized in expense as incurred, and the deferred revenue is recognized as revenue as the warranty work is performed. The remaining \$425 per unit is recognized as revenue on delivery of the dishwasher. The entries to record the years' events under this method are:

- |   |            |            |
|---|------------|------------|
| 1. Accounts Receivable .....  | 50,000,000 |            |
| Sales Revenue (100,000 X \$425).....                                  |            | 42,500,000 |
| Unearned Warranty Revenue (100,000 X \$75)                            |            | 7,500,000  |
| (To record sale of 100,000 dishwashers and unearned warranty revenue) |            |            |

**RA 13-4 MEMO TO CFO (CONTINUED)**

(a) (continued) Issue 1

2. Warranty Expense ..... 1,000,000  
     Materials, Cash, Payables, etc. .... 1,000,000  
     (To record warranty expense as the costs are incurred)
3. Unearned Warranty Revenue ..... 3,000,000  
     Warranty Revenue ..... 3,000,000  
     [To record estimated warranty revenue earned based on costs incurred in  
     year relative to total estimated cost of warranties on units sold:  
     \$1,000,000/\$2,500,000 = 40% of estimated revenue or 40% X \$7,500,000]

Under the assurance-type warranty approach, the assumption is that the warranty guarantees or assures the purchaser that the product was manufactured without defects. If this is not the case, the company will take responsibility for its repair. In this situation, 100% of the \$500 we charge the customer is for the dishwasher alone and any subsequent costs incurred under the warranty should be recognized as an expense that is matched with the sales revenue. The entries would be:

1. Accounts Receivable ..... 50,000,000  
     Sales Revenue ..... 50,000,000  
     (To record sale of 100,000 dishwashers at \$500 each)
2. Warranty Expense ..... 1,000,000  
     Materials, Cash, Payables, etc. .... 1,000,000  
     (To record warranty costs incurred)
3. Warranty Expense ..... 1,500,000  
     Warranty Liability ..... 1,500,000  
     [To accrue estimated remaining warranty costs (\$2,500,000 –  
     \$1,000,000)]

As can be seen, the amounts to be reported on the income statement will be different under the two approaches:

	Service-type approach	Assurance-type approach
Sales revenue - Dishwashers	\$42,500,000	\$50,000,000
Warranty revenue	3,000,000	
Warranty expense	(1,000,000)	(2,500,000)
Net impact on income	\$44,500,000	\$47,500,000



## RA 13-4 MEMO TO CFO (CONTINUED)

### (a) (continued) Issue 1

The service-type warranty method more closely reflects the contract-based approach for revenue recognition, and more faithfully presents outstanding performance obligations as a result of the sale transactions. This approach is consistent with both IFRS and, increasingly, with current ASPE practice. The liability on the statement of financial position is reflected at the fair value of the services still to be provided, as indicated in IFRS 13 that deals with fair value measurements. It is consistent with a warranty that protects the customer from defects that arise after the point of sale of the underlying asset. The gross profit on the warranty is actually deferred until the related work is performed.

The assurance-type warranty method corresponds well with a warranty that protects the customer from defects that exist when the product is transferred to the customer. All the revenue is therefore recognized when the product is sold, and the costs are matched with the revenue generated. The liability is measured under IAS 37 as a provision for the estimated costs to correct the product.

While recognizing income earlier rather than later (and therefore the assurance-type method) is usually preferred by management, the choice should be made based on the particular circumstances of the warranty we provide on the dishwashers. This would be consistent with both ASPE's bifurcation model and with the requirements of IFRS 15. In this way, the accounting reports will best reflect the economic circumstances associated with our business model.

### **Issue 2:** Rental Charges of Retail Division Based on Retail Profits

In reviewing the estimates used for bad debts expense and warranty costs, I noticed an increase from previous years. Burt Wilson, CEO had instructed the previous accountant to increase these estimates in order to keep the retail division's profits at \$475,000. Since a portion of the rental costs are based on retail profits in excess of \$500,000, the increase in estimates results in lower rent expense as it prevents income from reaching the \$500,000 threshold.

If the increases in estimates seem to be justified, based on current year actual experience, and/or by changes in economic conditions, the credit-worthiness of customers, past experience, or changes in product quality, I recommend continuing with the higher percentages. If not justified, I recommend reverting to estimates that can be substantiated. If a higher profit is indicated, we should recognize the additional rent expense and an increase in our rent payable liability.

**RA 13-4 MEMO TO CFO (CONTINUED)**

(a) (continued)

**Issue 3: Asset retirement obligation**

The treatment of asset retirement obligations under ASPE and IFRS are different. In both cases, the present value of the estimated future cash flows has to be determined. In the case of ASPE, the dismantling of the equipment and any added costs that result from the production process are added to the cost of the asset, and these are amortized over the life of the capital assets. Under IFRS, only the cost of dismantling the equipment is added to the capital cost. Any costs resulting from the production process are added to the cost of inventory as production costs and are expensed through cost of goods sold as the dishwashers are sold. The present value of the dismantling costs alone at June 1, 2017 is the present value of \$3 million due in 120 months. This, using a 0.5% per month discount rate is  $\$3,000,000 \times 0.54963 = \$1,648,890$ .

Dismantling costs under IFRS and ASPE: the journal entry required to record the dismantling costs related to the equipment itself and the asset retirement obligation:

Equipment .....	1,648,890	
Asset Retirement Obligation .....		1,648,890

Accumulated cleanup costs under ASPE: the accumulated cleanup costs related to the production process and the asset retirement obligation to December 31, 2017:

Estimated cash flows  $\$600,000/120 \times 7$  months = \$35,000

The present value of the estimated cleanup costs and the entry to record them are:

Present value of \$35,000 to be paid in 113 months' time at 0.5% per month

$\$35,000 \times 0.56916 = \$19,921$

Equipment .....	19,921	
Asset Retirement Obligation .....		19,921

Accumulated cleanup costs under IFRS: these costs will be charged to Inventory cost as they are considered a production cost:

Inventory .....	19,921	
Asset Retirement Obligation .....		19,921

**RA 13-4 MEMO TO CFO (CONTINUED)**

(a) (continued) Issue 3

Depreciation expense under ASPE: the amount of the 7 months' depreciation on the equipment at December 31, 2017 is:  $[(\$11,648,890 \times 7/120) + \$19,921] = \$699,440$

Note: While the cost of the ARO that has been capitalized for the equipment as a whole is amortized over the full 120 months, the cost of the monthly clean-up costs should be recognized in the months the clean-up costs relate to. While these costs are recognized at their present value, the obligation will have to be accreted because the obligation for these costs will not be paid for another 113 months.

Depreciation Expense .....	699,440	
Accumulated Depreciation – Equipment .....		699,440

(Note these costs charged to Depreciation Expense are production overhead costs. These will be either expensed in Cost of Goods Sold or included in ending inventory, depending on the number of dishwashers sold and still in inventory.)

Depreciation expense under IFRS: because the present value of the cleanup costs was charged directly to Inventory as a production cost instead of to the Equipment account, the depreciation expense under IFRS is limited to the balance in the Equipment account of \$11,648,890. Depreciation expense =  $\$11,648,890 \times 7/120 = \$679,520$ .

Depreciation Expense .....	679,520	
Accumulated Depreciation – Equipment .....		679,520

(Note these costs charged to Depreciation Expense are production overhead costs. These will be either expensed in Cost of Goods Sold or included in ending inventory, depending on the number of dishwashers sold and still in inventory.)

Accretion expense under IFRS and ASPE: to record the accretion of the asset retirement obligation assuming there is no change in the estimate of cash flows, timing or discount rate. Present value at December 31, 2017 is:

**RA 13-4 MEMO TO CFO (CONTINUED)**

(a) (continued) Issue 3

$$\begin{aligned} &\text{Present value of \$3 million in 113 months at 0.5\%} \\ &= \$3,000,000 \times .56916 = \$1,707,480 \\ &\text{Accretion} = \$1,707,480 - \$1,648,890 \end{aligned}$$

Interest Expense (IFRS)/Accretion Expense (ASPE)	58,590
Asset Retirement Obligation .....	58,590

Note: The present value of the \$35,000 clean-up costs of \$19,921 is already at its Dec. 31, 2017 present value in the ARO. Therefore, the book value and PV of the ARO at Dec. 31/17 is now \$1,707,480 + \$19,921 = \$1,727,401. At Dec. 31/18, this total will be subject to a full year's accretion.

Effect on net income ASPE and IFRS: As can be seen, the amounts to be reported on the income statement will likely be the same under the two approaches. The clean-up costs incurred for the 7 months under ASPE are recognized in depreciation expense which is a production overhead cost that is ultimately charged to Inventory, and under IFRS they are also charged to production costs of Inventory. In both cases, the production/conversion costs will then be allocated between inventory and cost of goods sold.

	ASPE	IFRS
Depreciation expense (to Inventory as a production overhead cost)*	\$699,440	\$679,519
Inventory (production overhead cost)*		19,921
Interest expense		58,590
Accretion expense	58,590	

\*allocated between cost of goods sold and ending inventory

**Issue 4: Litigation**

Loss Contingency on  
Patent Infringement Litigation

Under ASPE, the contingent liability is recognized if it is "*likely*" to occur and can be reliably measured. In this case, since the lawsuit is still pending and has been assessed as "*more likely than not*", this is not quite as high as "*likely*" is interpreted under ASPE. There is a 45% probability that no settlement will be required. As a result, under ASPE, there would be no liability recognized, but note disclosure would be required.

## RA 13-4 MEMO TO CFO (CONTINUED)

### (a) (continued) Issue 4

Because the liability recognition criteria have not been met, it must be disclosed in the notes to the financial statements. This note should include a discussion of this pending litigation along with the lawyer's assessment that the outcome is indeterminable.

Under IFRS, the treatment is different. Since the threshold of *more likely than not* has been met at a 55% probability, the next step is to determine its expected value.

Using the information provided by Robert Dowski, the best estimate is calculated as follows:

$$(20\% \times \$5 \text{ million}) + (35\% \times \$3 \text{ million}) + (45\% \times 0) = \$2.05 \text{ million}$$

A liability of \$2.05 million would be accrued as follows:

Litigation Expense .....	2,050,000	
Litigation Liability.....		2,050,000

Therefore, before-tax income would be lower under IFRS by \$2,050,000.

(b) For Issue 1, there is a fine line between what, in fact, is an assurance-type and a service-type warranty. In such a situation, management often reverts to looking at which has the more favourable effect on income in making the choice. Professional ethics would require me to understand the underlying objective of the accounting standards so that the accounting measurements would best represent economic reality. Although ASPE does not use the terms "assurance" and "service" warranties, it is clear that ASPE standards requires a separation of the selling price into a sale and a servicing component where one exists.

Issue 2 also requires an ethical perspective to be exercised with the same objective in mind as in Issue 1. In this case, however, and assuming that the higher percentages cannot be substantiated by current conditions, increasing the allowances for bad debts and warranties to reduce rental costs is blatantly unethical and should be corrected. The benefits of this type of behaviour are short-term in nature and will cause long-term difficulties for the company. The trend of higher estimates cannot be maintained indefinitely. The results can include losing the rental location, civil action against the company, as well as criminal action for fraudulent behaviour. In addition, the current shareholders are harmed because the lower net income reduces the current value of their holdings.

**RA 13-4 MEMO TO CFO (CONTINUED)**

(b) (continued)

There are no ethical considerations with Issues 3 and 4. The accounting in both cases depends on whether IFRS or ASPE is chosen. The choice in Issue 3 has no resulting difference in 2017 income. While there is a current year reduction in 2017 income associated with Issue 4 if IFRS is chosen, the total of 2017 and 2018 net incomes are likely to be the same under both sets of standards as the litigation is settled.

## RA 13-5 CITY GOODS LIMITED: ASPE AND IFRS

- The customer loyalty program represents an obligation for the company at January 31, 2018. Under IFRS, each sale has multiple deliverables that include not only the goods sold, but also the value of the points awarded. The fair value of the points must be recognized as unearned revenue until they are redeemed at some future date. Based on 700,000 points being awarded during the year, the amount of unearned revenue should be \$350,000 (700,000 X \$0.50). The journal entry to record the sales for the year should have been:

Cash / Accounts Receivable .....	XXXX	
Sales Revenue .....		XXX
Unearned Revenue.....		350,000

By the end of the year, 80,000 points have been redeemed out of a total expected redemption of 630,000 points or 90% of the 700,000 issued. Consequently, the amount of the unearned revenue to take into current year revenue is:

$$[80,000 / 630,000] \times \$350,000 = \$44,444$$

The journal entry to record the amount of revenue earned for the loyalty points is:

Unearned Revenue.....	44,444	
Sales Revenue .....		44,444

The treatment under ASPE would be similar.

- The second issue is one of an onerous contract. The company is no longer gaining any benefits from the lease of this retail location since the store has been closed. However, it still has to make payments on the lease until March 1, 2019. The company has a legal obligation to continue to make the payments under the lease agreement, and these payments are unavoidable costs. The landlord is likely to accept a lump sum payment now equal to the present value of the remaining lease payments. Under IFRS, the liability must be recognized and measured at the present value of the unavoidable payments that must be made and unrecoverable loss expected to be incurred. At January 31, 2018, the company has 14 payments left from February 1, 2018 to March 1, 2019.

The present value of these annuity due payments is: \$2,300 each month, for 14 months at an interest rate of 0.5% per month = \$31,179 (found using a financial calculator or Excel). The January 31, 2018 journal entry required is:

**RA 13-5 CITY GOODS LIMITED (CONTINUED)**

2. (continued)

Loss on Lease .....	31,179	
Liability for Onerous Contracts.....		31,179

Under ASPE, onerous contracts are not specifically addressed; but practice has been to recognize the liability and the loss based on the fact that the entity has an obligation to pay for something that provides no future benefit to the entity.



## RA 13-6 EMPLOYEE BENEFITS

### Item 1

The sick leave obligation arises as the employee provides a service to the company and therefore must be accrued at December 31, 2017. Under IFRS, the entity recognizes the expected cost of short-term employee benefits such as accumulating paid absences as the employees provide services that increase such entitlements. (IAS 19.11 and .13). In this case, the 3% increase has already been agreed to so the expected amount would include this increase and the best estimate is calculated as follows:

$$60 \text{ days} \times \$250 \text{ per day} \times 103\% = \$15,450$$

The following journal entry would be required on December 31, 2017:

Employee Benefit Expense .....	15,450	
Sick Pay Wages Payable .....		15,450

ASPE does not provide any specific guidance on this type of benefit except that a liability arises from past transactions and requires the settlement in the future with a possible transfer of assets. Established practice would record similar amounts as under IFRS.

### Item 2

Parental leave is a non-accumulating benefit and only arises when an event that obligates the company takes place. In this case, the employee who has already started maternity leave on December 15 is entitled to the benefit. Conduit's obligation for the benefit to be paid in 2018 is accrued at December 31, 2017.

The amount of this obligation is:

$$\$1,000 \times 11.5 \text{ months} = \$11,500.$$

The journal entry is:

Employee Benefit Expense .....	11,500	
Parental Leave Benefits Payable .....		11,500

For the other employee, the adoption has not yet taken place, and therefore the event obligating Conduit has not yet occurred. There will be no liability recognized in relation to this employee until the time of the adoption and the parental leave commences.

IFRS and ASPE treatments are the same for these benefits.

## RA 13-6 EMPLOYEE BENEFITS (CONTINUED)

### Item 3

This bonus is payable at December 31, 2017, since it relates to compensation that was earned during 2017. The total amount of the bonus is \$2 million X 3% = \$60,000. This equates to:

Managers – 30% X \$60,000 = \$18,000

Non-managers – 70% X \$60,000 = \$42,000. For each non-manager, the bonus is  $\$42,000 \div 40 = \$1,050$

However, there is a stipulation that the bonus will only be paid to employees who are still working for the company on October 31, 2018 – 10 months from now. As a result, the best estimate of the liability would take into the consideration the turnover that is expected to occur over the next 10 months.

With the estimated turnover of 5%, this means that only 38 non-management employees (40 X 95%) are expected to still be employed by the company by the payout date. Therefore, the best estimate of the payment to non-managers is:  $38 \times \$1,050 = \$39,900$ .

Therefore, the total bonus payable is:  $\$18,000 + \$39,900 = \$57,900$  and the December 31, 2017 journal entry required for the bonus payable is:

Bonus Expense.....	57,900	
Bonus Payable.....		57,900

### Item 4

The vacation payable is an accumulating benefit that vests since the employee is entitled to this amount. However, the legal entitlement is only 2 weeks, and the additional amount of 1 week is a constructive obligation. Currently, 10 employees are still owed 2 weeks' vacation (having taken 1 week already during 2017). Under IFRS, the entire 2 weeks would be reported as an obligation at December 31, 2017, but adjusted for the probabilities related to all employees being entitled to this full amount. Based on the information, the expected value of the obligation would be calculated as follows:

$[10 \text{ employees} \times 10 \text{ days} \times \$250 \times 103\%]$  minus  $[(1 \text{ employee} \times 5 \text{ days} \times \$250 \times 103\%) \times .15] = \$25,750 - \$193 = \$25,557$

The journal entry required is:

Salaries and Wages Expense .....	25,557	
Vacation Wages Payable.....		25,557

Under ASPE, this type of constructive obligation would also be recorded as it is the normal business practice.

## RA 13-6 EMPLOYEE BENEFITS (CONTINUED)

### Item 5

This relates to a possible contingent obligation. It appears that a settlement above the \$30,000 already recognized will be required, and the obligation arose from a past event. The employee is asking for \$62,500 (25 years X 10 days X \$250/day). Consequently, some amount above the \$30,000 must be reported at December 31, 2017.

Under IFRS, a probability weighted expected value is determined. Using the estimates provided by the lawyer, this amount is estimated to be:

$$(25\% \times \$20,000) + (60\% \times \$28,000) + (15\% \times \$30,000) = \$26,300.$$

**An additional provision will be accrued as follows:**

Litigation Expense.....	26,300	
Litigation Liability.....		26,300

Reconciliations from opening balances to closing balances are required for each class of provision. The changes due to this litigation case would be aggregated with other litigation amounts, but no specific amounts would have to be disclosed about the expected outcome of this arbitration because such information would seriously prejudice Conduit's position.

Under ASPE, this contingency appears to be likely and it will require some amount of settlement based on the estimates provided by the lawyer. However, the amount to be recorded is either the best estimate within a range if it can be determined, or the lowest of the ranges of possible outcomes if no one amount is any more likely than any other. In this case, the range of settlements is \$20,000 to \$30,000. Assuming a most likely estimate of \$28,000 based on the information provided by the lawyer, this would be used to measure the additional amount of the liability.

**The estimated obligation would be recorded as follows:**

Litigation Expense.....	28,000	
Litigation Liability.....		28,000

The note disclosure required under ASPE includes the fact that a contingent loss exists at December 31, 2017 and that an exposure to loss exists in excess of the amount recognized.

## RA 13-7 RESEARCH TOPICS

### *Sample Solution*

Topic: Liability accruals on interim financial statements

International accounting principles (IFRS) use the approach that an enterprise should apply the same accounting policies in its interim financial statements as are applied in its annual financial statements. Therefore, an enterprise should apply the same criteria for recognizing and measuring a liability accrual at the end of an interim period as it does at the end of its fiscal year. This means liabilities are recognized if an enterprise has a present obligation, resulting from a past event, it is probable that an outflow of economic benefits will be required to settle that obligation and a reliable estimate of the obligation can be made.

For example, if a year-end bonus is a legal obligation, or past practice makes the bonus a constructive obligation for which the enterprise has no realistic alternative but to make the payments and a reliable estimate of the amount of the obligation can be made, the bonus is accrued for interim reporting purposes.

Since this type of bonus is usually based on a contract and is short-term in nature, it is recorded in the accounting records and reported in financial statements at the amount of cash that is payable in the future.

The accounting standard that is applied to this topic is *International Accounting Standard 34*, "Interim Financial Reporting".

IAS 34 mentions recognizing and measuring losses that require accounting estimates (e.g. inventory write-downs or restructurings). It states that if the estimates change in a subsequent interim period of that financial year, the original estimate is changed in the subsequent interim period either by accrual of an additional amount of loss or by reversal of the previously recognized amount. Several accounting issues are related to the fact that interim financial statements require many more estimates than annual financial statements, particularly for those costs and receipts that are annual in nature. These would include, for example, accruals for income taxes, bonuses, and customer and vendor rebates. While the general principles are included in IAS 34 itself, an Appendix to this standard (not considered part of IFRS) provides additional details for common issues that many companies must deal with in preparing their interim statements.

Under ASPE, there is no standard covering interim financial reports. However, following the ASPE standards (Section 1100, Generally Accepted Accounting Principles), it is likely that a private company wishing to prepare interim financial statements would look to be consistent with IFRS requirements for the most part in determining the recognition and measurement principles to apply.

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