

Chapter 3**Test Form A****Name:** _____*Solve the following problems.*

1. 228 stores is 57% of what number of stores? 1. _____
2. What is 8% of 425 coins? 2. _____
3. 81 smartphones is 45% of what number of smartphones? 3. _____
4. 12,110 members is what percent of 21,625 members? 4. _____
5. What is $\frac{5}{16}$ % of \$640? 5. _____
6. Find the fractional equivalent of 45%. 6. _____
7. 36 cars is $2\frac{1}{4}$ % of what number of cars? 7. _____
8. Change 48.2% to its fractional equivalent. 8. _____
9. \$1096.48 is what percent of \$623? 9. _____
10. What is the fractional equivalent $\frac{7}{8}$ %? 10. _____
11. A stock selling for \$56 per share pays a 9% dividend. Find the dividend per share. 11. _____
12. A retailer must collect $6\frac{3}{4}$ % for sales tax. If sales tax for the month is \$12,379.50, find the amount of sales for the month. 12. _____

13. An electric scooter is offered at 21% off the manufacturer's suggested retail price of \$220. Find the discount and the sale price of the scooter. 13. _____
14. After deducting 10.75% of total sales as her commission, a salesperson deposited \$4284 to the company account. Find the total amount of her sales. 14. _____
15. Rachel Teeter has a monthly budget of \$3000. She plans to spend 34% for rent and utilities, 23% for food, 5% for entertainment, 25% to pay off debt, and the remainder will go into a savings account. 15. (a) _____
(b) _____
16. Troy Ulman received his annual savings account statement, showing \$78.75 in interest. If his savings account balance was \$2100 at the beginning of the year, what is his annual interest rate? 16. _____
17. A laptop computer is marked "reduced 25%, now only \$510." Find the original price of the laptop. 17. _____
18. This year's enrollment at Tarrant County Community College 16,016, which is 12% more than last year. Last year's enrollment was 10% more than the year before. Find the number of students enrolled two years ago. 18. _____
19. The number of petty crimes this year fell to 276 from 349 incidents. Find the percent of decrease. Round to the nearest tenth of a percent. 19. _____
20. Enrollment in the community education program this year decreased 20% to 580 students. Find last year's enrollment. 20. _____

Solve the following problems.

1. 13.6 pounds is 85% of how many pounds? 1. _____

2. What is 4% of \$1390? 2. _____

3. 608 digital cameras is 64% of what number of cameras? 3. _____

4. 189 textbooks is what percent of 1350 textbooks? 4. _____

5. What is $\frac{5}{16}$ % of \$8400? 5. _____

6. Find the fractional equivalent of 46%. 6. _____

7. 54 stereos is 4.5% of how many stereos? 7. _____

8. Change 42.5% to its fractional equivalent. 8. _____

9. \$2477.24 is what percent of \$7286? 9. _____

10. What is the fractional equivalent of $\frac{7}{20}$ %? 10. _____

11. One share of stock sells for \$36.50 and pays a 4% dividend. Find the dividend per share. 11. _____

12. A bike shop owner must collect $6\frac{1}{4}$ % for sales tax. If sales tax for the month is \$2156.25, find the amount of sales for the month. 12. _____

13. Framing supplies are offered at 22% off the retail price. Find the discount and sale price of supplies originally costing \$36.99. Round to the nearest cent. 13. _____
14. Enrollment in a college algebra course this year is 105.5% of last year's 1800 students. Find the number of students enrolled this year. 14. _____
15. A consulting company has a monthly advertising budget of \$2400. They plan to spend 30% for coupon books, 25% for newspaper ads, 17% for outdoor signs, 18% for radio spots, and the remainder for team sponsorship. 15. (a) _____
(b) _____
16. Renee Guzman received her annual credit union dividend statement, showing \$446.25 in dividends. If her credit union share balance was \$8500 at the beginning of the year, what annual rate of return was paid by the credit union? 16. _____
17. A hair dryer is marked "reduced 15%, now only \$29.75." Find the original price of the hair dryer. 17. _____
18. Last year, Rebecca sold 20% more Girl Scout cookies than the year before. This year, she sold 414 boxes, which is 15% more than last year. Find the number of boxes of cookies Rebecca sold two years ago. 18. _____
19. The population of Oakdale increased from 6500 to 7600. Find the percent of increase. Round to the nearest tenth of a percent. 19. _____
20. Caton College is decreasing the number of new admissions by 6.8% to 2600 students. Find the number of new students that were admitted last year. Round to the nearest whole number. 20. _____

Solve the following problems.

1. 45 skateboards is 36% of what number of skateboards? 1. _____
2. What is 8% of \$3650? 2. _____
3. 273 memberships is 26% of what number of memberships? 3. _____
4. 469 students is what percent of 2345 students? 4. _____
5. What is $\frac{9}{16}$ % of \$3200? 5. _____
6. Find the fractional equivalent of 85%. 6. _____
7. \$25 is $1\frac{1}{4}$ % of what amount? 7. _____
8. Change 18.5% to its fractional equivalent. 8. _____
9. \$787.50 is what percent of \$2625? 9. _____
10. What is the fractional equivalent of $\frac{5}{8}$ %? 10. _____
11. A stock selling for \$63 per share pays a 2.9% dividend. Find the dividend per share. Round to the nearest cent. 11. _____
12. The sales tax on a sofa is \$61.20. Find the cost of the sofa if the sales tax rate is 8.5%. 12. _____

13. Health products are discounted 33% for wholesale distributors. Find the discount and the wholesale price of weight loss products originally priced at \$139.95. Round to the nearest cent. **13.** _____
14. After deducting 9.8% of total sales as her commission, Sally deposited \$4059 to the company account. Find the total amount of Sally's sales. **14.** _____
15. A freelancer has a monthly advertising budget of \$800. She plans to spend 40% for newspaper ads, 35% for outdoor signs, 8% for pamphlets, and the remainder for internet advertising. **15. (a)** _____
(b) _____
- (a) What percent of the entire budget does she plan to spend on internet advertising?
- (b) How much money does she plan to spend on internet advertising for the entire year?
16. If Ryan earned \$1175 on an investment of \$9400, find his rate of return. **16.** _____
17. A calculator is marked "reduced 15%, now only \$23.80." Find the original price of the calculator. **17.** _____
18. Last year, Eklund's sold 10% more automobiles than the year before. This year, Eklund's sold 1980 automobiles, which is 20% more than last year. Find the number of automobiles sold two years ago. **18.** _____
19. The Thornocks bought a house valued at \$235,000. Two years later, construction of a highway through the lot next door reduced the value of the house to \$189,000. Find the percent of decrease. Round to the nearest tenth of a percent. **19.** _____
20. Over the last ten years, the population of Whitehall increased 8% to 2646. Find the population of Whitehall ten years ago. **20.** _____

Solve the following problems.

1. 27 cameras is 45% of what number of cameras? 1. _____
2. What is 72% of \$1760? 2. _____
3. 98 telephone calls is 7% of what number of telephone calls? 3. _____
4. 504 textbooks is what percent of 1575 textbooks? 4. _____
5. What is $\frac{5}{8}$ % of \$6800? 5. _____
6. Find the fractional equivalent of 32%. 6. _____
7. \$25.50 is 3.75% of what amount? 7. _____
8. Change 62.8% to its fractional equivalent. 8. _____
9. \$3074.40 is what percent of \$8540? 9. _____
10. What is the fractional equivalent of $\frac{3}{40}$ %? 10. _____
11. A stock selling for \$66 per share pays a 3.5% dividend.
Find the dividend per share. 11. _____
12. Cook's Appliance must collect $7\frac{3}{4}$ % for sales tax.
If sales tax for the month is \$2867.50, find the total
sales for the month. 12. _____

13. The retail price of a hand embroidered family crest is \$79. If more than 25 are ordered, the retailer offers a discount of 15%. Find the cost of 30 embroidered family crests. **13.** _____
14. After deducting 13.5% of the value of total production as samples, a manager found that \$16,002.50 remained. Find the total value of production. **14.** _____
15. A local shop has a monthly advertising budget of \$5800. They plan to spend 34% for television, 28% for newspaper, 18% for outdoor signs, 15% for radio, and the remainder for business cards. **15. (a)** _____
(b) _____
- (a) What percent of the entire budget do they plan to spend on business cards?
- (b) How much money do they plan to spend on business cards for the entire year?
16. Sid Acuff received her annual credit union dividend statement, showing \$484.50 in dividends. If her credit union share balance was \$10,200 at the beginning of the year, what annual rate of return was paid by the credit union? **16.** _____
17. A keyboard is marked "reduced 15%, now only \$211.65." Find the original price of the keyboard. **17.** _____
18. Last year, a retailer sold 15% more home entertainment systems than the year before. This year, 2277 systems were sold, which is 10% more than last year. Find the number of entertainment systems sold two years ago. **18.** _____
19. Kurdziel Industries is planning to cut 139 of 1600 jobs at its plant in Montague, Michigan. Find the percent of decrease. Round to the nearest tenth of a percent. **19.** _____
20. Austin made \$192 tutoring this summer, a 20% decrease from last year. Find how much he made last year. **20.** _____

For each question, select the letter that corresponds to the correct answer.

1. 15 DVDs is 12% of what number of DVDs? 1. _____
(a) 13 DVDs (b) 125 DVDs
(c) 180 DVDs (d) 17 DVDs

2. What is 28% of \$1350? 2. _____
(a) \$1055 (b) \$37,800 (c) \$378 (d) \$4821

3. \$105 is 54% of what amount? 3. _____
(a) \$48.30 (b) \$228.26 (c) \$194.44 (d) \$56.70

4. 690 students is what percent of 3450 students? 4. _____
(a) 2% (b) 5% (c) 50% (d) 20%

5. What is $\frac{3}{20}$ % of \$3000? 5. _____
(a) \$4.50 (b) \$50 (c) \$450 (d) \$5

6. Find the fractional equivalent of 24%. 6. _____
(a) $\frac{4}{50}$ (b) $\frac{6}{25}$ (c) $\frac{1}{16}$ (d) $\frac{4}{25}$

7. 26 photos is 6.5% of how many photos? 7. _____
(a) 4 photos (b) 169 photos
(c) 1690 photos (d) 400 photos

8. Change 13.6% to its fractional equivalent. 8. _____
(a) $\frac{17}{125}$ (b) $\frac{6}{13}$ (c) $\frac{5}{68}$ (d) $\frac{25}{34}$

9. \$813.60 is what percent of \$1800? **9.** _____
(a) 221.2% (b) 45.2% (c) .452% (d) 2.21%
10. What is the fractional equivalent of $\frac{7}{20}\%$? **10.** _____
(a) $\frac{7}{20}$ (b) $\frac{7}{200}$ (c) $\frac{1}{35}$ (d) $\frac{7}{2000}$
11. A stock selling for \$64 per share pays a 2.5% dividend. Find the dividend per share. **11.** _____
(a) \$25.60 (b) \$160 (c) \$1.60 (d) \$256
12. A retailer must collect $6\frac{3}{4}\%$ for sales tax. If sales tax for the month is \$1181.25, find the amount of sales for the month. **12.** _____
(a) \$198 (b) \$80 (c) \$7088 (d) \$17,500
13. A jeweler offers a pendant for \$95, and matching earrings for \$68.95. If the two items are both purchased, a discount of 6.1% is offered. Find the sale price for the combination. Round to the nearest cent. **13.** _____
(a) \$153.95 (b) \$26.05 (c) \$163.95 (d) \$10.00
14. The number of members at Your Time Fitness this year is 110% of last year's 130 members. Find the number of members enrolled this year. **14.** _____
(a) 118 members (b) 1181 members
(c) 140 members (d) 143 members
15. Rolling Rides theme park has a monthly advertising budget of \$8400. They plan to spend 25% for television, 20% for newspaper, 20% for banners, 18% for radio, and the remainder for coupons. How much do they plan to spend on coupons for the four month operating season? **15.** _____
(a) \$1428 (b) \$5712 (c) \$3108 (d) \$6972

- 16.** Cherin Hillseth received her annual credit union dividend statement, showing \$453 in dividends. If her credit union share balance was \$12,080 at the beginning of the year, what annual rate of return was paid by the credit union? **16.** _____
- (a) 3.75% (b) 2.7% (c) 37.5% (d) 26.7%
- 17.** A bread machine is marked "reduced 15%, now only \$101.15." Find the original price of the bread machine. **17.** _____
- (a) \$115 (b) \$674.33 (c) \$119 (d) \$116.32
- 18.** Last year, Annie Shaw's annual income increased 3.9% from the previous year. This year, Annie's salary is \$55,200, which is an increase of 6.2% from last year. Find Annie's annual income two years ago. Round to the nearest dollar. **18.** _____
- (a) \$60,909 (b) \$50,026 (c) \$58,622 (d) \$51,977
- 19.** Tomato prices fell from \$1.28 a pound to \$.95 a pound. Find the percent of decrease. Round to the nearest tenth of a percent. **19.** _____
- (a) 25.8% (b) 74.2% (c) 33% (d) 34.7%
- 20.** Over the next 3 years, North Lake Community College plans to purchase 1800 tablets, increasing the current number by 45%. Find the number of tablets before these purchases. **20.** _____
- (a) 1241 tablets (b) 2610 tablets
(c) 810 tablets (d) 4000 tablets

For each question, select the letter that corresponds to the correct answer.

1. $127\frac{3}{4}$ miles is 35% of what number of miles? 1. _____
(a) 45 miles (b) 400 miles
(c) 365 miles (d) 4471 miles

2. What is 54% of \$380? 2. _____
(a) \$246.75 (b) \$570.37 (c) \$585.20 (d) \$205.20

3. 589 apartments is 62% of what number of apartments? 3. _____
(a) 224 apartments (b) 1550 apartments
(c) 950 apartments (d) 365 apartments

4. 621 is what percent of 1725? 4. _____
(a) 278% (b) 36% (c) .36% (d) 2.78%

5. What is $\frac{3}{8}\%$ of \$1800? 5. _____
(a) \$48 (b) \$675 (c) \$4.80 (d) \$6.75

6. Find the fractional equivalent of 72%. 6. _____
(a) $\frac{18}{25}$ (b) $\frac{7}{8}$ (c) $\frac{8}{9}$ (d) $\frac{31}{50}$

7. 33 inches is 9.6% of what number of inches? 7. _____
(a) 343.75 inches (b) 3.17 inches
(c) 316.80 inches (d) 1.32 inches

8. Change 17.5% to its fractional equivalent. 8. _____
(a) $\frac{5}{22}$ (b) $\frac{7}{40}$ (c) $\frac{1}{4}$ (d) $\frac{1}{5}$

9. \$100.50 is what percent of \$1500? **9.** _____
(a) 1493% (b) 67% (c) 14.9% (d) 6.7%
10. What is the fractional equivalent of $\frac{5}{16}\%$? **10.** _____
(a) $\frac{1}{80}$ (b) $\frac{5}{16}$ (c) $\frac{1}{320}$ (d) $\frac{1}{32}$
11. A stock selling for \$75 per share pays a 2.8% dividend. Find the dividend per share. **11.** _____
(a) \$2678.57 (b) \$2.10 (c) \$26.79 (d) \$210.00
12. Jerry Thomas purchased a graphing calculator for \$76.14, which included $5\frac{3}{4}\%$ sales tax. Find the amount of the sales tax. **12.** _____
(a) \$4.38 (b) \$4.14 (c) \$72.00 (d) \$13.24
13. S&S Construction must reduce its work force from 80 to 65 employees. Find the percent of employees who can expect to lose their jobs. **13.** _____
(a) 5.33% (b) 23.08% (c) 18.75% (d) 81.25%
14. There are 1428 senior citizens in the town of Rothbury. This figure represents 17% of the total population of Rothbury. Find the total population of Rothbury. **14.** _____
(a) 8400 (b) 1671 (c) 1720 (d) 7800
15. A bakery has a monthly advertising budget of \$3800. They plan to spend 28% for coupon books, 34% for newspaper, 18% for banners, 17% for radio, and the remainder for team sponsorship. How much do they plan to spend on team sponsorship for the entire year? **15.** _____
(a) \$114 (b) \$3686 (c) \$2432 (d) \$1368

16. Sandra Cook's annual credit union statement reflects \$365.40 in dividends. If her credit union balance was \$8700 at the beginning of the year, what annual rate of return was paid by the credit union? **16.** _____
- (a) 4.2% (b) 42% (c) 22.8% (d) 23.8%
17. A bicycle is marked "reduced 15%, now only \$302.39." Find the original price of the bicycle. Round to the nearest cent. **17.** _____
- (a) \$262.95 (b) \$287.99 (c) \$318.31 (d) \$355.75
18. Last year's alumni association enrollment was 25% more than the previous year. This year, enrollment is 2600 members, which is 4% more than last year. Find the number of alumni enrolled in the association two years ago. **18.** _____
- (a) 2625 members (b) 3250 members
(c) 2000 members (d) 2500 members
19. A scout troop sold 148 boxes of cookies last month and 165 boxes this month. Find the percent of increase. Round to the nearest tenth of a percent. **19.** _____
- (a) 11.5% (b) 1.1% (c) 10.3% (d) .9%
20. Attendance at Oktoberfest was 12% more than last year. This year's attendance was 1848 people. Find the number of people who attended the festival last year. **20.** _____
- (a) 2100 people (b) 1626 people
(c) 1650 people (d) 2070 people

