

Multiple Choice

1. A change in the level of an economic activity is desirable and should be undertaken as long as the marginal benefits exceed the \_\_\_\_.

- a. marginal returns
- b. total costs
- c. marginal costs
- d. average costs
- e. average benefits

*ANSWER:* c  
*POINTS:* 1  
*DIFFICULTY:* Easy  
*QUESTION TYPE:* Multiple Choice  
*HAS VARIABLES:* False  
*NATIONAL STANDARDS:* United States - BPROG: Analytic  
*TOPICS:* Marginal Analysis  
*KEYWORDS:* BLOOM'S: Comprehension  
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2. The level of an economic activity should be increased to the point where the \_\_\_\_ is zero.

- a. marginal cost
- b. average cost
- c. net marginal cost
- d. net marginal benefit
- e. none of the above

*ANSWER:* d  
*POINTS:* 1  
*DIFFICULTY:* Moderate  
*QUESTION TYPE:* Multiple Choice  
*HAS VARIABLES:* False  
*NATIONAL STANDARDS:* United States - BPROG: Analytic  
*TOPICS:* Marginal Analysis  
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3. The net present value of an investment represents

- a. an index of the desirability of the investment
- b. the expected contribution of that investment to the goal of shareholder wealth maximization
- c. the rate of return expected from the investment
- d. a and b only
- e. a and c only

*ANSWER:* b  
*POINTS:* 1  
*DIFFICULTY:* Moderate

*QUESTION TYPE:* Multiple Choice  
*HAS VARIABLES:* False  
*NATIONAL STANDARDS:* United States - BPROG: Analytic  
*TOPICS:* The Net Present Value Concept  
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4. Generally, investors expect that projects with high expected net present values also will be projects with
- low risk
  - high risk
  - certain cash flows
  - short lives
  - none of the above

*ANSWER:* b  
*POINTS:* 1  
*DIFFICULTY:* Moderate  
*QUESTION TYPE:* Multiple Choice  
*HAS VARIABLES:* False  
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5. An closest example of a risk-free security is
- General Motors bonds
  - AT&T commercial paper
  - U.S. Government Treasury bills
  - San Francisco municipal bonds
  - an I.O.U. that your cousin promises to pay you \$100 in 3 months

*ANSWER:* c  
*POINTS:* 1  
*DIFFICULTY:* Moderate  
*QUESTION TYPE:* Multiple Choice  
*HAS VARIABLES:* False  
*NATIONAL STANDARDS:* United States - BPROG: Analytic  
*TOPICS:* Meaning and Measurement of Risk  
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6. The standard deviation is appropriate to compare the risk between two investments only if
- the expected returns from the investments are approximately equal
  - the investments have similar life spans

- c. objective estimates of each possible outcome is available
- d. the coefficient of variation is equal to 1.0
- e. none of the above

**ANSWER:** a  
**POINTS:** 1  
**DIFFICULTY:** Moderate  
**QUESTION TYPE:** Multiple Choice  
**HAS VARIABLES:** False  
**NATIONAL STANDARDS:** United States - BPROG: Reflective Thinking - BPROG: Analysis  
**TOPICS:** Meaning and Measurement of Risk  
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7. The approximate probability of a value occurring that is greater than one standard deviation from the mean is approximately (assuming a normal distribution)

- a. 68.26%
- b. 2.28%
- c. 34%
- d. 15.87%
- e. none of the above

**ANSWER:** d  
**POINTS:** 1  
**DIFFICULTY:** Challenging  
**QUESTION TYPE:** Multiple Choice  
**HAS VARIABLES:** False  
**NATIONAL STANDARDS:** United States - BPROG: Analytic  
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8. Based on risk-return tradeoffs observable in the financial marketplace, which of the following securities would you expect to offer higher expected returns than corporate bonds?

- a. U.S. Government bonds
- b. municipal bonds
- c. common stock
- d. commercial paper
- e. none of the above

**ANSWER:** c  
**POINTS:** 1  
**DIFFICULTY:** Easy  
**QUESTION TYPE:** Multiple Choice  
**HAS VARIABLES:** False  
**NATIONAL STANDARDS:** United States - BPROG: Analytic

**TOPICS:** Risk and Required Return  
**KEYWORDS:** BLOOM'S: Comprehension  
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9. The primary difference(s) between the standard deviation and the coefficient of variation as measures of risk are:
- the coefficient of variation is easier to compute
  - the standard deviation is a measure of relative risk whereas the coefficient of variation is a measure of absolute risk
  - the coefficient of variation is a measure of relative risk whereas the standard deviation is a measure of absolute risk
  - the standard deviation is rarely used in practice whereas the coefficient of variation is widely used
  - c and d

**ANSWER:** c  
**POINTS:** 1  
**DIFFICULTY:** Moderate  
**QUESTION TYPE:** Multiple Choice  
**HAS VARIABLES:** False  
**NATIONAL STANDARDS:** United States - BPROG: Reflective Thinking - BPROG: Analysis  
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10. The \_\_\_\_ is the ratio of \_\_\_\_ to the \_\_\_\_.
- standard deviation; covariance; expected value
  - coefficient of variation; expected value; standard deviation
  - correlation coefficient; standard deviation; expected value
  - coefficient of variation; standard deviation; expected value
  - none of the above

**ANSWER:** d  
**POINTS:** 1  
**DIFFICULTY:** Moderate  
**QUESTION TYPE:** Multiple Choice  
**HAS VARIABLES:** False  
**NATIONAL STANDARDS:** United States - BPROG: Reflective Thinking - BPROG: Analysis  
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11. Sources of positive net present value projects include
- buyer preferences for established brand names
  - economies of large-scale production and distribution
  - patent control of superior product designs or production techniques
  - a and b only

e. a, b, and c

**ANSWER:** e  
**POINTS:** 1  
**DIFFICULTY:** Moderate  
**QUESTION TYPE:** Multiple Choice  
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12. Receiving \$100 at the end of the next three years is worth more to me than receiving \$260 right now, when my required interest rate is 10%.

- a. True
- b. False

**ANSWER:** b  
**POINTS:** 1  
**DIFFICULTY:** Moderate  
**QUESTION TYPE:** Multiple Choice  
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**NATIONAL STANDARDS:** United States - BPROG: Analytic  
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13. The number of standard deviations  $z$  that a particular value of  $r$  is from the mean  $\mu$  can be computed as  $z = (r - \mu) / \sigma$ . Suppose that you work as a commission-only insurance agent earning \$1,000 per week on average. Suppose that your standard deviation of weekly earnings is \$500. What is the probability that you earn zero in a week? Use the following brief z-table to help with this problem.

Z value Probability

-3 .0013  
-2 .0228  
-1 .1587  
0 .5000

- a. 1.3% chance of earning nothing in a week
- b. 2.28% chance of earning nothing in a week
- c. 15.87% chance of earning nothing in a week
- d. 50% chance of earning nothing in a week
- e. none of the above

**ANSWER:** b  
**POINTS:** 1  
**DIFFICULTY:** Challenging  
**QUESTION TYPE:** Multiple Choice  
**HAS VARIABLES:** False

**NATIONAL STANDARDS:** United States - BPROG: Reflective Thinking - BPROG: Analysis

**TOPICS:** Risk and Required Return

**KEYWORDS:** BLOOM'S: Analysis

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14. Consider an investment with the following payoffs and probabilities:

State of the Economy Probability Return

Stability .50 1,000

Good Growth .50 2,000

Determine the *expected return* for this investment.

a. 1,300

b. 1,500

c. 1,700

d. 2,000

e. 3,000

**ANSWER:** b

**POINTS:** 1

**DIFFICULTY:** Moderate

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**NATIONAL STANDARDS:** United States - BPROG: Reflective Thinking - BPROG: Analysis

**TOPICS:** Marginal Analysis

**KEYWORDS:** BLOOM'S: Analysis

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15. Consider an investment with the following payoffs and probabilities:

State of the Economy Probability Return

GDP grows slowly .70 1,000

GDP grow fast .30 2,000

Let the expected value in this example be 1,300. How do we find the *standard deviation* of the investment?

a.  $\sigma = \sqrt{\{ (1000-1300)^2 + (2000-1300)^2 \}}$

b.  $\sigma = \sqrt{\{ (1000-1300) + (2000-1300) \}}$

c.  $\sigma = \sqrt{\{ (.5)(1000-1300)^2 + (.5)(2000-1300)^2 \}}$

d.  $\sigma = \sqrt{\{ (.7)(1000-1300) + (.3)(2000-1300) \}}$

e.  $\sigma = \sqrt{\{ (.7)(1000-1300)^2 + (.3)(2000-1300)^2 \}}$

**ANSWER:** e

**POINTS:** 1

**DIFFICULTY:** Moderate

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**NATIONAL STANDARDS:** United States - BPROG: Reflective Thinking - BPROG: Analysis

**TOPICS:** Risk and Required Return

**KEYWORDS:** BLOOM'S: Analysis

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16. An investment advisor plans a portfolio your 85 year old risk-averse grandmother. Her portfolio currently consists of 60% bonds and 40% blue chip stocks. This portfolio is estimated to have an expected return of 6% and with a standard deviation 12%. What is the probability that she makes less than 0% in a year? [A portion of Appendix B1 is given below, where  $z = (x - \mu)/\sigma$ , with  $\mu$  as the mean and  $\sigma$  as the standard deviation.]

- a. 2.28%
- b. 6.68%
- c. 15.87%
- d. 30.85%
- e. 50%

Table B1 for Z

Z	Prob.
-3	.0013
-2.5	.0062
-2	.0228
-1.5	.0668
-1	.1587
-.5	.3085
0	.5000

ANSWER: d  
POINTS: 1  
DIFFICULTY: Challenging  
QUESTION TYPE: Multiple Choice  
HAS VARIABLES: False  
NATIONAL STANDARDS: United States - BPRPOG: Analysis  
TOPICS: Risk and Required Return  
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17. Two investments have the following expected returns (net present values) and standard deviations:

PROJECT Expected Value Standard Deviation

Q \$100,000 \$20,000

X \$50,000 \$16,000

Based on the Coefficient of Variation, where the C.V. is the standard deviation dividend by the expected value.

- a. All coefficients of variation are always the same.
- b. Project Q is riskier than Project X
- c. Project X is riskier than Project Q
- d. Both projects have the same relative risk profile
- e. There is not enough information to find the coefficient of variation.

ANSWER: c  
POINTS: 1  
DIFFICULTY: Challenging  
QUESTION TYPE: Multiple Choice  
HAS VARIABLES: False  
NATIONAL STANDARDS: United States - BPROG: Reflective Thinking - BPROG: Analysis  
TOPICS: Marginal Analysis

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18. Regarding demand and supply, which of the following statements is NOT correct?
- a. Demand and supply simultaneously determine equilibrium market price
  - b. Demand expresses intentions, but supply does not
  - c. Demand is a potential concept distinguished from the transactional even of "units sold"
  - d. Supply is more like scenario planning for operations than for actual production
  - e. all of the above statements are correct

**ANSWER:** b

**POINTS:** 1

**DIFFICULTY:** Moderate

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**NATIONAL STANDARDS:** United States - BPROG: Reflective Thinking - BPROG: Analysis

**TOPICS:** Demand and Supply: A Review

**KEYWORDS:** BLOOM'S: Comprehension

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19. The marginal decision rule will be replaced with the net present value rule when:
- a. costs and benefits occur at approximately the same time
  - b. costs are incurred immediately
  - c. benefits are incurred immediately
  - d. the marginal decision rule is never replaced

**ANSWER:** b

**POINTS:** 1

**DIFFICULTY:** Moderate

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**NATIONAL STANDARDS:** United States - BPROG: Analytic

**TOPICS:** The Net Present Value Concept

**KEYWORDS:** BLOOM'S: Comprehension

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Essay

20. Suppose that the firm's cost function is given in the following schedule (where Q is the level of output):

Output Q (units)	Total Cost
0	7
1	25
2	37
3	45



4	50
5	53
6	58
7	66
8	78
9	96
10	124

Determine the (a) marginal cost and (b) average total cost schedules

ANSWER:

Output	Total Cost	(a)	(b)
		Marginal Cost	Average Total Cost
Q		$\frac{\Delta(TC)}{\Delta Q}$	$\frac{TC}{Q}$
0	7	--	--
1	25	18	25.00
2	37	12	18.50
3	45	8	15.00
4	50	5	12.50
5	53	3	10.60
6	58	5	9.67
7	66	8	9.43
8	78	12	9.75
9	96	18	10.67
10	124	28	12.40

POINTS: 1  
 DIFFICULTY: Challenging  
 QUESTION TYPE: Essay  
 HAS VARIABLES: False  
 NATIONAL STANDARDS: United States - BPRPOG: Analysis  
 TOPICS: Marginal Analysis  
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21. Complete the following table.

Output	Total Profit	Marginal Profit	Average Profit
0	-48	0	_____
1	-26	_____	_____
2	-8	_____	_____
3	6	_____	_____
4	16	_____	_____
5	22	_____	_____
6	24	_____	_____
7	22	_____	_____
8	16	_____	_____
9	6	_____	_____
10	-8	_____	_____

ANSWER:

Output	Total Profit	Marginal Profit	Average Profit
0	-48	0	---
1	-26	22	-26.
2	-8	18	-4.
3	6	14	2.
4	16	10	4.
5	22	6	4.40
6	24	2	4.
7	22	-2	3.14
8	16	-6	2.
9	6	-10	0.67
10	-8	-14	-0.80

POINTS:

1

DIFFICULTY:

Challenging

QUESTION TYPE:

Essay

HAS VARIABLES:

False

NATIONAL STANDARDS: United States - BPRPOG: Analysis

TOPICS:

Marginal Analysis

KEYWORDS:

BLOOM'S: Analysis

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22. A firm has decided to invest in a piece of land. Management has estimated that the land can be sold in 5 years for the following possible prices:

Price	Probability
10,000	.20
15,000	.30
20,000	.40
25,000	.10

- Determine the expected selling price for the land.
- Determine the standard deviation of the possible sales prices.
- Determine the coefficient of variation.

ANSWER:

$$\begin{aligned} \bar{r} &= \sum_{j=1}^n r_j P_j \\ \text{(a)} \quad &= 10,000(.20) + 15,000(.30) + 20,000(.40) + 25,000(.10) \\ &= \$17,000 \end{aligned}$$

$$\sigma = \left[ \sum_{j=1}^n (r_j - \bar{r})^2 P_j \right]^{\frac{1}{2}}$$

$$\begin{aligned} \text{(b)} \quad &= [(10,000 - 17,000)^2 (.20) + (15,000 - 17,000)^2 (.30) + (20,000 - 17,000)^2 (.40) \\ &\quad + (25,000 - 17,000)^2 (.10)]^{\frac{1}{2}} \\ &= [21,000,000]^{\frac{1}{2}} \\ &= \$4583 \end{aligned}$$

$$v = \sigma / \bar{r}$$

$$\begin{aligned} \text{(c)} \quad &= \frac{4583}{17,000} \\ &= 0.270 \end{aligned}$$

*POINTS:* 1  
*DIFFICULTY:* Challenging  
*QUESTION TYPE:* Essay  
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