Chapter 02 Cost Behavior, Operating Leverage, and Profitability Analysis

1. Java Joe operates a chain of coffee shops. The company pays rent of $20,000 per year for each shop. Supplies (napkins, bags and condiments) are purchased as needed. The manager of each shop is paid a salary of $3,000 per month, and all other employees are paid on an hourly basis. Relative to the number of customers for a shop, the cost of supplies is which kind of cost?

   A. Fixed cost
   B. Variable cost
   C. Mixed cost
   D. Relevant cost

   AACSB: Analytic
   AICPA BB: Critical Thinking
   Blooms: Understand
   Difficulty: 1 Easy

   Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

2. Select the correct statement regarding fixed costs.

   A. Because they do not change, fixed costs should be ignored in decision making.
   B. The fixed cost per unit decreases when volume increases.
   C. The fixed cost per unit increases when volume increases.
   D. The fixed cost per unit does not change when volume decreases.

   AACSB: Analytic
   AICPA BB: Critical Thinking
   Blooms: Understand
   Difficulty: 2 Medium

   Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.
3. Larry's Lawn Care incurs significant gasoline costs. This cost would be classified as a variable cost if the total gasoline cost:

A. varies inversely with the number of hours the lawn equipment is operated.
B. is not affected by the number of hours the lawn equipment is operated.
C. increases in direct proportion to the number of hours the lawn equipment is operated.
D. None of these

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 2 Medium

Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

4. Select the correct statement regarding fixed costs.

A. There is a contradiction between the term "fixed cost per unit" and the behavior pattern implied by the term.
B. Fixed cost per unit is not fixed.
C. Total fixed cost remains constant when volume changes.
D. All of these are correct statements.

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 1 Easy

Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

5. Rock Creek Bottling Company pays its production manager a salary of $6,000 per month. Salespersons are paid strictly on commission, at $1.50 for each case of product sold.

For Rock Creek Bottling Company, the production manager's salary is an example of:

A. a variable cost.
B. a mixed cost.
C. a fixed cost.
D. None of these

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 1 Easy

Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.
6. Rock Creek Bottling Company pays its production manager a salary of $6,000 per month. Salespersons are paid strictly on commission, at $1.50 for each case of product sold.

For Rock Creek Bottling Company, the salespersons’ commissions are an example of:

A. a fixed cost.
B. a variable cost.
C. a mixed cost.
D. None of these

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 1 Easy

Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

7. Based on the following cost data, what conclusions can you make about Product A and Product B?

<table>
<thead>
<tr>
<th>Production:</th>
<th>Total Cost</th>
<th>Unit Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Product A</td>
<td>Product B</td>
</tr>
<tr>
<td>10 units</td>
<td>$100</td>
<td>?</td>
</tr>
<tr>
<td>100 units</td>
<td>$1,000</td>
<td>?</td>
</tr>
<tr>
<td>1,000 units</td>
<td>$10,000</td>
<td>?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Production:</th>
<th>Product A</th>
<th>Product B</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 units</td>
<td>?</td>
<td>$10,000</td>
</tr>
<tr>
<td>100 units</td>
<td>?</td>
<td>$1,000</td>
</tr>
<tr>
<td>1,000 units</td>
<td>?</td>
<td>$100</td>
</tr>
</tbody>
</table>

A. Product A is a fixed cost and Product B is a variable cost.
B. Product A is a variable cost and Product B is a fixed cost.
C. Product A and Product B are both variable costs.
D. Product A and Product B are both mixed costs.

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Analyze
Difficulty: 2 Medium

Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.
8. Based on the following cost data, items labeled (a) and (b) in the table below are which of the following amounts, respectively?

<table>
<thead>
<tr>
<th>Number of units:</th>
<th>1,500</th>
<th>3,000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total cost:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>$7,500</td>
<td>$15,000</td>
</tr>
<tr>
<td>Fixed</td>
<td>$6,000</td>
<td>$6,000</td>
</tr>
<tr>
<td><strong>Cost per unit:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>$5</td>
<td>(a)</td>
</tr>
<tr>
<td>Fixed</td>
<td>$4</td>
<td>(b)</td>
</tr>
</tbody>
</table>

A. (a) = $3.00; (b) = $3.00  
B. (a) = $5.00; (b) = $4.00  
C. (a) = $2.50; (b) = $2.00  
D. (a) = $5.00; (b) = $2.00  

9. Two different costs incurred by Ruiz Company exhibit the following behavior pattern per unit:

<table>
<thead>
<tr>
<th>Units Sold</th>
<th>50</th>
<th>100</th>
<th>150</th>
<th>200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost #1</td>
<td>$300 per unit</td>
<td>$150 per unit</td>
<td>$100 per unit</td>
<td>$75 per unit</td>
</tr>
<tr>
<td>Cost #2</td>
<td>$2 per unit</td>
<td>$2 per unit</td>
<td>$2 per unit</td>
<td>$2 per unit</td>
</tr>
</tbody>
</table>

Cost #1 and Cost #2 exhibit which of the following cost behavior patterns, respectively?

A. Fixed/Variable  
B. Variable/Variable  
C. Fixed/Fixed  
D. Variable/Fixed  

Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.
10. Wu Company incurred $40,000 of fixed cost and $50,000 of variable cost when 4,000 units of product were made and sold.

If the company's volume doubles, the total cost per unit will:

A. stay the same.
B. decrease.
C. double as well.
D. increase but will not double.

AACSB: Analytic
AICPA FN: Measurement
Blooms: Analyze
Difficulty: 2 Medium
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

11. Wu Company incurred $40,000 of fixed cost and $50,000 of variable cost when 4,000 units of product were made and sold.

If the company's volume increases to 5,000 units, the total cost per unit will be:

A. $18.00.
B. $20.00.
C. $20.50.
D. $22.50.

AACSB: Analytic
AICPA FN: Measurement
Blooms: Analyze
Difficulty: 3 Hard
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

12. Wu Company incurred $40,000 of fixed cost and $50,000 of variable cost when 4,000 units of product were made and sold.

If the company's volume increases to 5,000 units, the company's total costs will be:

A. $100,000
B. $90,000
C. $102,500
D. $80,000

AACSB: Analytic
AICPA FN: Measurement
Blooms: Analyze
Difficulty: 2 Medium
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.
13. Wu Company incurred $40,000 of fixed cost and $50,000 of variable cost when 4,000 units of product were made and sold.

If the company’s volume doubles, the company’s **total cost** will:

A. stay the same.  
B. double as well.  
C. increase but will not double.  
D. decrease.

AACSB: Analytic  
AICPA FN: Measurement  
Blooms: Analyze  
Difficulty: 2 Medium  
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

14. In the graph below, which depicts the relationship between units produced and total cost, the dotted line depicts which type of total **cost**?

![Graph with dotted line](image)

A. Variable cost  
B. Fixed cost  
C. Mixed cost  
D. None of these

AACSB: Analytic  
AICPA BB: Industry  
Blooms: Understand  
Difficulty: 1 Easy  
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.
15. In the graph below, which depicts the relationship between units produced and unit cost, the dotted line depicts which type of **cost per unit**?

   ![Graph](image)

   A. Variable cost  
   B. Fixed cost  
   C. Mixed cost  
   D. None of these

**AACSB: Analytic**  
AICPA BB: Industry  
Blooms: Understand  
Difficulty: 3 Hard  
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

16. In the graph below, which depicts the relationship between units produced and total cost, the dotted line depicts which type of **total cost**?

   ![Graph](image)

   A. Variable cost  
   B. Fixed cost  
   C. Mixed cost  
   D. None of these

**AACSB: Analytic**  
AICPA BB: Industry  
Blooms: Understand  
Difficulty: 1 Easy  
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.
17. Pickard Company pays its sales staff a base salary of $4,500 a month plus a $3.00 commission for each product sold. If a salesperson sells 800 units of product in January, the employee would be paid:

A. $6,900  
B. $4,500  
C. $2,300  
D. $2,700

AACSB: Analytic  
AICPA FN: Measurement  
Blooms: Apply  
Difficulty: 1 Easy  
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

18. Quick Change and Fast Change are competing oil change businesses. Both companies have 5,000 customers. The price of an oil change at both companies is $20. Quick Change pays its employees on a salary basis, and its salary expense is $40,000. Fast Change pays its employees $8 per customer served. Suppose Quick Change is able to lure 1,000 customers from Fast Change by lowering its price to $18 per vehicle. Thus, Quick Change will have 6,000 customers and Fast Change will have only 4,000 customers.

Select the correct statement from the following.

A. Quick Change’s profit will increase while Fast Change’s profit will fall.  
B. Fast Change’s profit will fall but it will still earn a higher profit than Quick Change.  
C. Profits will decline for both Quick Change and Fast Change.  
D. Quick Change’s profit will remain the same while Fast Change’s profit will decrease.

AACSB: Analytic  
AICPA FN: Measurement  
Blooms: Analyze  
Difficulty: 3 Hard  
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.
19. Hard Nails and Bright Nails are competing nail salons. Both companies have the same number of customers. Both charge the same price for a manicure. The only difference is that Hard Nails pays its manicurists on a salary basis (i.e., a fixed cost structure) while Bright Nails pays its manicurists on the basis of the number of customers they serve (i.e., a variable cost structure). Both companies currently make the same amount of net income. If sales of both salons increase by an equal amount, Hard Nails:

A. will earn a higher profit than Bright Nails.
B. will earn a lower profit than Bright Nails.
C. will earn the same amount of profit as Bright Nails.
D. The answer cannot be determined from the information provided.

AACSB: Analytic
AICPA FN: Measurement
Blooms: Analyze
Difficulty: 3 Hard
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

20. Fixed cost per unit:

A. decreases as production volume decreases.
B. is not affected by changes in the production volume.
C. decreases as production volume increases.
D. increases as production volume increases.

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 1 Easy
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

21. Cool Runnings operates a chain of frozen yogurt shops. The company pays $5,000 of rent expense per month for each shop. The managers of each shop are paid a salary of $3,000 per month and all other employees are paid on an hourly basis. Relative to the number of shops, the cost of rent is which kind of cost?

A. Variable cost
B. Fixed cost
C. Mixed cost
D. Opportunity cost

AACSB: Analytic
AICPA FN: Measurement
Blooms: Analyze
Difficulty: 2 Medium
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.
22. Companies A and B are in the same industry and are identical except for cost structure. At a volume of 50,000 units, the companies have equal net incomes. At 60,000 units, Company A's net income would be substantially higher than B's. Based on this information,

A. Company A's cost structure has more variable costs than B's.
B. Company A's cost structure has higher fixed costs than B's.
C. Company B's cost structure has higher fixed costs than A's.
D. At a volume of 50,000 units, Company A's magnitude of operating leverage was lower than B's.

Learning Objective: 02-02 Demonstrate the effects of operating leverage on profitability.
Learning Objective: 02-04 Calculate the magnitude of operating leverage.

23. Operating leverage exists when:

A. a company utilizes debt to finance its assets.
B. management buys enough of the company's shares of stock to take control of the corporation.
C. the organization makes purchases on credit instead of paying cash.
D. small percentage changes in revenue produce large percentage changes in profit.

Learning Objective: 02-02 Demonstrate the effects of operating leverage on profitability.

24. For the last two years BRC Company had net income as follows:

<table>
<thead>
<tr>
<th>Net Income</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$160,000</td>
<td>$200,000</td>
</tr>
</tbody>
</table>

What was the percentage change in income from 2012 to 2013?

A. 20% increase
B. 20% decrease
C. 25% increase
D. 25% decrease

Learning Objective: 02-02 Demonstrate the effects of operating leverage on profitability.
25. The activity director for City Recreation is planning an activity. She is considering alternative ways to set up the activity's cost structure. Select the incorrect statement from the following.

A. If the director expects a low turnout, she should use a fixed cost structure.
B. If the director expects a large turnout, she should attempt to convert variable costs into fixed costs.
C. If the director shifts the cost structure from fixed to variable, the level of risk decreases.
D. If the director shifts the cost structure from fixed to variable, the potential for profits will be reduced.

AACSB: Analytic
AICPA FN: Decision Making
AICPA FN: Risk Analysis
Blooms: Analyze
Difficulty: 3 Hard

Learning Objective: 02-02 Demonstrate the effects of operating leverage on profitability.

26. Select the incorrect statement regarding the relationship between cost behavior and profits.

A. A pure variable cost structure offers higher potential rewards.
B. A pure fixed cost structure offers more security if volume expectations are not achieved.
C. In a pure variable cost structure, when revenue increases by $1, so do profits.
D. In a pure fixed cost structure, the unit selling price and unit contribution margin are equal.

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Analyze
Difficulty: 3 Hard

Learning Objective: 02-02 Demonstrate the effects of operating leverage on profitability.

27. Select the correct statement from the following.

A. A fixed cost structure offers less risk (i.e., less earnings volatility) and higher opportunity for profitability than does a variable cost structure.
B. A variable cost structure offers less risk and higher opportunity for profitability than does a fixed cost structure.
C. A fixed cost structure offers greater risk but higher opportunity for profitability than does a variable cost structure.
D. A variable cost structure offers greater risk but higher opportunity for profitability than does a fixed cost structure.

AACSB: Analytic
AICPA FN: Risk Analysis
Blooms: Analyze
28. The manager of Kenton Company stated that 45% of its total costs were fixed. The manager was describing the company's:

A. operating leverage.
B. contribution margin.
C. cost structure.
D. cost averaging.

29. Select the incorrect statement regarding cost structures.

A. Highly leveraged companies will experience greater profits than companies less leveraged when sales increase.
B. The more variable cost, the higher the fluctuation in income as sales fluctuate.
C. When sales change, the amount of the corresponding change in income is affected by the company’s cost structure.
D. Faced with significant uncertainty about future revenues, a low leverage cost structure is preferable to a high leverage cost structure.

30. Executive management at Ballard Books is very optimistic about the chain’s ability to achieve significant increases in sales in each of the next five years. The company will most benefit if management creates a:

A. low leverage cost structure.
B. medium leverage cost structure.
C. high leverage cost structure.
D. no leverage cost structure.
31. Based on the income statements shown below, which division has the cost structure with the highest operating leverage?

<table>
<thead>
<tr>
<th></th>
<th>Soft Drinks</th>
<th>Bottled Water</th>
<th>Fruit Juices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$50,000</td>
<td>$50,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>Variable costs</td>
<td>(10,000)</td>
<td>(5000)</td>
<td>(30,000)</td>
</tr>
<tr>
<td>Contribution margin</td>
<td>40,000</td>
<td>45,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Fixed costs</td>
<td>(30,000)</td>
<td>(40,000)</td>
<td>(10,000)</td>
</tr>
<tr>
<td>Net income</td>
<td>$10,000</td>
<td>$5,000</td>
<td>$10,000</td>
</tr>
</tbody>
</table>

A. Bottled Water.
B. Fruit Juices.
C. Soft Drinks.
D. The three divisions have identical operating leverage.

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Analyze
Difficulty: 1 Easy
Learning Objective: 02-02 Demonstrate the effects of operating leverage on profitability.

32. The following income statements are provided for two companies operating in the same industry.

<table>
<thead>
<tr>
<th></th>
<th>Felix Company</th>
<th>Jinx Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$200,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>Variable costs</td>
<td>(25,000)</td>
<td>(70,000)</td>
</tr>
<tr>
<td>Contribution margin</td>
<td>175,000</td>
<td>130,000</td>
</tr>
<tr>
<td>Fixed costs</td>
<td>(70,000)</td>
<td>(25,000)</td>
</tr>
<tr>
<td>Net income</td>
<td>$105,000</td>
<td>$105,000</td>
</tr>
</tbody>
</table>

Assuming sales increase by $1,000, select the correct statement from the following:

A. Felix's net income will be more than Jinx's.
B. Both companies will experience an increase in profit.
C. Felix's net income will increase by $250.
D. Jinx's net income will increase by 6%.

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Analyze
Difficulty: 2 Medium
Learning Objective: 02-02 Demonstrate the effects of operating leverage on profitability.
33. The excess of a product's selling price over its variable costs is referred to as:

A. gross profit
B. gross margin
C. contribution margin
D. manufacturing margin

Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
Blooms: Remember
Difficulty: 1 Easy

34. Select the incorrect statement regarding the contribution margin income statement.

A. The contribution margin approach for the income statement is unacceptable for external reporting.
B. Contribution margin represents the amount available to cover product costs and thereafter to provide profit.
C. The contribution margin approach requires that all costs be classified as fixed or variable.
D. Assuming no change in fixed costs, a $1 increase in contribution margin will result in a $1 increase in profit.

Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 2 Medium

35. Which of the following items would not be found on a contribution format income statement?

A. Fixed cost
B. Variable cost
C. Gross margin
D. Net income

Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 1 Easy
36. The following income statement is provided for Ramirez Company in 2013:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales revenue (2,500 units x $40 per unit)</td>
<td>$100,000</td>
</tr>
<tr>
<td>Cost of goods sold (variable; 2,500 units x $16 per unit)</td>
<td>(40,000)</td>
</tr>
<tr>
<td>Cost of goods sold (fixed)</td>
<td>(8,000)</td>
</tr>
<tr>
<td>Gross margin</td>
<td>52,000</td>
</tr>
<tr>
<td>Administrative salaries</td>
<td>(12,000)</td>
</tr>
<tr>
<td>Depreciation</td>
<td>(8,000)</td>
</tr>
<tr>
<td>Supplies (2,500 units x $4 per unit)</td>
<td>(10,000)</td>
</tr>
<tr>
<td>Net income</td>
<td>$22,000</td>
</tr>
</tbody>
</table>

What amount was the company's contribution margin?

A. $50,000  
B. $22,000  
C. $52,000  
D. $60,000

AACSB: Analytic  
AICPA FN: Measurement  
Blooms: Analyze  
Difficulty: 3 Hard  
Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.

37. In order to prepare a contribution format income statement:

A. costs must be separated into manufacturing and selling, general, and administrative costs.  
B. costs must be separated into cost of goods sold and operating expenses.  
C. costs must be separated into variable and fixed costs.  
D. costs must be separated into mixed, variable and fixed costs.

AACSB: Analytic  
AICPA BB: Critical Thinking  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.
38. Select from the following the incorrect statement regarding contribution margin.

A. Sales - fixed costs = contribution margin  
B. Net income + total fixed costs = contribution margin  
C. At the breakeven point (where the company has neither profit nor loss), total fixed costs = total contribution margin  
D. Total sales revenue times the contribution margin percentage = total contribution margin

AACSB: Analytic  
AICPA BB: Critical Thinking  
Blooms: Analyze  
Difficulty: 3 Hard

Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.

39. The following information is provided for Southall Company:

| Sales revenue | $125,000 |
| Variable manufacturing costs | $42,500 |
| Fixed manufacturing costs | $37,500 |
| Variable selling and administrative costs | $15,000 |
| Fixed selling and administrative costs | $12,500 |

What is this company's contribution margin?

A. $30,000  
B. $17,500  
C. $45,000  
D. $67,500

AACSB: Analytic  
AICPA FN: Measurement  
Blooms: Apply  
Difficulty: 2 Medium

Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.

40. Which of the following equations can be used to compute a firm's magnitude of operating leverage?

A. Net income/sales  
B. Fixed costs/contribution margin  
C. Contribution margin/net income  
D. Net income/contribution margin

AACSB: Analytic  
AICPA FN: Risk Analysis  
Blooms: Remember
41. The following income statement is provided for Vargas, Inc.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales revenue (2,500 units x $60 per unit)</td>
<td>$ 150,000</td>
</tr>
<tr>
<td>Cost of goods sold (variable; 2,500 units x $20 per unit)</td>
<td>(50,000)</td>
</tr>
<tr>
<td>Cost of goods sold (fixed)</td>
<td>(8,000)</td>
</tr>
<tr>
<td>Gross margin</td>
<td>92,000</td>
</tr>
<tr>
<td>Administrative salaries</td>
<td>(42,000)</td>
</tr>
<tr>
<td>Depreciation</td>
<td>(10,000)</td>
</tr>
<tr>
<td>Supplies (2,500 units x $4 per unit)</td>
<td>(10,000)</td>
</tr>
<tr>
<td>Net income</td>
<td>$ 30,000</td>
</tr>
</tbody>
</table>

What is this company's magnitude of operating leverage?

A. 3.07  
B. 0.33  
C. 3.00  
D. 1.67

42. The following income statement is provided for Grant, Inc.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales revenue (1,500 @ $30 per unit)</td>
<td>$ 45,000</td>
</tr>
<tr>
<td>Variable costs (1,500 @ $14 per unit)</td>
<td>21,000</td>
</tr>
<tr>
<td>Fixed costs</td>
<td>16,000</td>
</tr>
<tr>
<td>Net income</td>
<td>$ 8,000</td>
</tr>
</tbody>
</table>

What is this company's magnitude of operating leverage?

A. 0.33  
B. 1.31  
C. 2.00  
D. 3.00

AACSB: Analytic  
AICPA FN: Risk Analysis  
Blooms: Analyze  
Difficulty: 3 Hard

Learning Objective: 02-04 Calculate the magnitude of operating leverage.

AACSB: Analytic  
AICPA FN: Risk Analysis  
Blooms: Understand  
Difficulty: 2 Medium
43. The magnitude of operating leverage for Forbes Corporation is 1.8 when sales are $200,000 and net income is $24,000. If sales increase by 5%, what is net income expected to be?

A. $25,200  
B. $26,160  
C. $24,667  
D. $43,200

AACSB: Analytic  
AICPA FN: Risk Analysis  
Blooms: Analyze  
Difficulty: 3 Hard

Learning Objective: 02-04 Calculate the magnitude of operating leverage.

44. The magnitude of operating leverage for Blue Ridge Corporation is 3.5 when sales are $200,000 and net income is $36,000. If sales decrease by 6%, net income is expected to decrease by what amount?

A. $2,160  
B. $7,560  
C. $3,420  
D. $1,260

AACSB: Analytic  
AICPA FN: Risk Analysis  
Blooms: Analyze  
Difficulty: 3 Hard

Learning Objective: 02-04 Calculate the magnitude of operating leverage.

45. The magnitude of operating leverage for Perkins Corporation is 4.5 when sales are $100,000. If sales increase to $110,000, profits would be expected to increase by what percent?

A. 4.5%  
B. 14.5%  
C. 45%  
D. 10%

AACSB: Analytic  
AICPA FN: Risk Analysis  
Blooms: Analyze  
Difficulty: 2 Medium

Learning Objective: 02-04 Calculate the magnitude of operating leverage.
46. Based on the income statements of the three following retail businesses, which company has the highest operating leverage?

<table>
<thead>
<tr>
<th></th>
<th>Alpha Company</th>
<th>Beta Company</th>
<th>Gamma Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$200,000</td>
<td>$200,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>Variable costs</td>
<td>($5,000)</td>
<td>($15,000)</td>
<td>($25,000)</td>
</tr>
<tr>
<td>Contribution margin</td>
<td>$105,000</td>
<td>$45,000</td>
<td>$75,000</td>
</tr>
<tr>
<td>Fixed costs</td>
<td>($30,000)</td>
<td>($20,000)</td>
<td>($30,000)</td>
</tr>
<tr>
<td>Net income</td>
<td>$25,000</td>
<td>$25,000</td>
<td>$25,000</td>
</tr>
</tbody>
</table>

A. Alpha Company  
B. Beta Company  
C. Gamma Company  
D. They all have same operating leverage

AACSB: Analytic  
AICPA FN: Risk Analysis  
Blooms: Analyze  
Difficulty: 2 Medium  
Learning Objective: 02-04 Calculate the magnitude of operating leverage.

47. Wham Company sells electronic squirrel repellants for $60. Variable costs are 60% of sales and total fixed costs are $40,000. What is the firm's magnitude of operating leverage if 2,000 units are sold?

A. 0.17  
B. 6.0  
C. 2.25  
D. None of these

AACSB: Analytic  
AICPA FN: Risk Analysis  
Blooms: Analyze  
Difficulty: 3 Hard  
Learning Objective: 02-04 Calculate the magnitude of operating leverage.

48. Whether a cost behaves as a fixed cost or as a variable cost depends upon the:

A. presence of fixed costs.  
B. cost structure of the company.  
C. industry.  
D. activity base used.

AACSB: Analytic  
AICPA BB: Critical Thinking  
Blooms: Understand  
Difficulty: 1 Easy  
Learning Objective: 02-04 Calculate the magnitude of operating leverage.
49. Craft, Inc. normally produces between 120,000 and 150,000 units each year. Producing more than 150,000 units alters the company's cost structure. For example, fixed costs increase because more space must be rented, and additional supervisors must be hired. The production range between 120,000 and 150,000 is called the:

A. differential range.
B. median range.
C. relevant range.
D. leverage range.

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-04 Calculate the magnitude of operating leverage.

50. Mug Shots operates a chain of coffee shops. The company pays rent of $15,000 per year for each shop. Supplies (napkins, bags and condiments) are purchased as needed. The managers of each shop are paid a salary of $2,500 per month and all other employees are paid on an hourly basis. The cost of rent relative to the number of customers in a particular shop and relative to the number of customers in the entire chain of shops is which kind of cost, respectively?

A. Variable cost/fixed cost
B. Fixed cost/fixed cost
C. Fixed cost/variable cost
D. Variable cost/variable cost

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 2 Medium
Learning Objective: 02-04 Calculate the magnitude of operating leverage.

51. Select the incorrect statement regarding the relevant range of volume.

A. Total fixed costs are expected to remain constant.
B. Total variable costs are expected to vary in direct proportion with changes in volume.
C. Variable cost per unit is expected to remain constant.
D. Total cost per unit is expected to remain constant.

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 2 Medium
Learning Objective: 02-04 Calculate the magnitude of operating leverage.
52. What are the expected average quarterly costs of running a consulting practice if fixed costs are expected to be $4,000 a month and variable costs are expected to be $100 per client for each quarter? Expected number of clients for the year are:

<table>
<thead>
<tr>
<th>Jan-Mar</th>
<th>Apr-Jun</th>
<th>Jul-Sep</th>
<th>Oct-Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>140</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

A. $12,500
B. $24,500
C. $16,500
D. $19,500

AACSB: Analytic
AICPA FN: Measurement
Blooms: Analyze
Difficulty: 3 Hard
Learning Objective: 02-05 Select an appropriate time period for calculating the average cost per unit.

53. Yankee Tours provide seven-day guided tours along the New England coast. The company pays its guides a total of $100,000 per year. The average cost of supplies, lodging and food per customer is $500. The company expects a total of 500 customers during the period January - June, and a total of 1,500 customers from July through December. Yankee wants to earn $100 income per customer. For promotional reasons the company desires to charge the same price throughout the year. Based on this information, what is the correct price per customer? (round to nearest dollar)

A. $450
B. $500
C. $650
D. $700

AACSB: Analytic
AICPA FN: Measurement
Blooms: Analyze
Difficulty: 3 Hard
Learning Objective: 02-05 Select an appropriate time period for calculating the average cost per unit.

54. Select the incorrect statement regarding the use of average unit costs.

A. Average costs should be calculated for a sufficiently long time period to capture seasonal fluctuations in costs.
B. Average costs are often more relevant for decision making than are actual costs.
C. Average cost information can help managers evaluate performance of the company or departments in the company.
D. Cost averaging should be used only for fixed costs, and not for variable costs.

AACSB: Analytic
55. The following information is given regarding driving lessons provided by Arrive Alive Company over several spans of time:

<table>
<thead>
<tr>
<th>Length of Time</th>
<th>TODAY</th>
<th>ONE YEAR</th>
<th>FIVE YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cost of lessons</td>
<td>$600</td>
<td>$110,000</td>
<td>$508,000</td>
</tr>
<tr>
<td>Number of lessons</td>
<td>50</td>
<td>10,000</td>
<td>55,000</td>
</tr>
</tbody>
</table>

Select the incorrect statement from the following.

A. The average cost per lesson over the five-year period was $9.24.
B. Based on the most current information, the cost per lesson was $12.00.
C. The average cost based on the total five-year period is probably the most appropriate cost for pricing purposes.
D. The selection of the most appropriate time span for calculating the average cost often requires considerable judgment.

56. A cost that contains both fixed and variable elements is referred to as a:

A. mixed cost.
B. hybrid cost.
C. relevant cost.
D. nonvariable cost.
57. Which of the following costs typically include both fixed and variable components?

A. Direct materials
B. Direct labor
C. Factory overhead
D. None of these

Learning Objective: 02-06 Use the high-low method; scattergraphs; and regression analysis to estimate fixed and variable costs.

58. Southern Food Service operates six restaurants in the Atlanta area. The company pays rent of $20,000 per year for each shop. The managers of each shop are paid a salary of $4,200 per month and all other employees are paid on an hourly basis. Relative to the number of hours worked, total compensation cost for a particular shop is which kind of cost?

A. Mixed cost
B. Fixed cost
C. Variable cost
D. None of these

Learning Objective: 02-06 Use the high-low method; scattergraphs; and regression analysis to estimate fixed and variable costs.

59. Production in 2013 for California Manufacturing, a producer of high security bank vaults, was at its highest point in the month of June when 80 units were produced at a total cost of $800,000. The lowest point in production was in January when only 20 units were produced at a cost of $440,000. The company is preparing a budget for 2013 and needs to project expected fixed cost for the budget year. Using the high/low method, the projected amount of fixed cost per month is

A. $120,000
B. $320,000
C. $480,000
D. $360,000

Learning Objective: 02-06 Use the high-low method; scattergraphs; and regression analysis to estimate fixed and variable costs.
60. The following income statements are provided for Li Company's last two years of operation:

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of units produced and sold</td>
<td>3,500</td>
<td>3,000</td>
</tr>
<tr>
<td>Sales revenue</td>
<td>$101,500</td>
<td>$87,000</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>$68,000</td>
<td>$60,000</td>
</tr>
<tr>
<td>Gross margin</td>
<td>$33,500</td>
<td>$27,000</td>
</tr>
<tr>
<td>General, selling, and administrative expenses</td>
<td>$13,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>Net income</td>
<td>$20,500</td>
<td>$15,000</td>
</tr>
</tbody>
</table>

Assuming that cost behavior did not change over the two year period, what is the amount of the company's variable cost of goods sold per unit?

A. $12.00 per unit  
B. $16.00 per unit  
C. $22.00 per unit  
D. None of these

Learning Objective: 02-06 Use the high-low method; scattergraphs; and regression analysis to estimate fixed and variable costs.

AACSB: Analytic  
AICPA FN: Measurement  
Blooms: Analyze  
Difficulty: 2 Medium

61. The following income statements are provided for Li Company's last two years of operation:

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
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<td>$60,000</td>
</tr>
<tr>
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<td>$27,000</td>
</tr>
<tr>
<td>General, selling, and administrative expenses</td>
<td>$13,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>Net income</td>
<td>$20,500</td>
<td>$15,000</td>
</tr>
</tbody>
</table>

Assuming that cost behavior did not change over the two year period, what is the annual amount of the company's fixed manufacturing overhead?

A. $12,000  
B. $24,000  
C. $26,000  
D. None of these

AACSB: Analytic  
AICPA FN: Measurement  
Blooms: Analyze
The following income statements are provided for Li Company's last two years of operation:

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of units produced and sold</td>
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</tr>
<tr>
<td>Cost of goods sold</td>
<td>68,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Gross margin</td>
<td>33,500</td>
<td>27,000</td>
</tr>
<tr>
<td>General, selling, and administrative expenses</td>
<td>13,000</td>
<td>12,000</td>
</tr>
<tr>
<td>Net income</td>
<td>$20,500</td>
<td>$15,000</td>
</tr>
</tbody>
</table>

Assuming that cost behavior did not change over the two year period, what is the company's annual fixed general, selling, and administrative cost?

A. $6,500
B. $6,000
C. $3,000
D. $2,500
63. The following income statements are provided for Li Company’s last two years of operation:

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of units produced and sold</td>
<td>3,500</td>
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<td>12,000</td>
</tr>
<tr>
<td>Net income</td>
<td>$20,500</td>
<td>$15,000</td>
</tr>
</tbody>
</table>

Assuming that cost behavior did not change over the two year period, what is Li Company’s contribution margin in 2013?

A. $33,000  
B. $32,000  
C. $39,000  
D. $69,000

64. The results below represent what form of cost behavior?

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units</td>
<td>4,500</td>
<td>4,800</td>
</tr>
<tr>
<td>Total Cost</td>
<td>$11,250</td>
<td>$12,000</td>
</tr>
</tbody>
</table>

A. Fixed Cost  
B. Variable Cost  
C. Mixed Cost  
D. Opportunity Cost

Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.  
Learning Objective: 02-06 Use the high-low method; scattergraphs; and regression analysis to estimate fixed and variable costs.

Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.
65. Based on the following operating data, the operating leverage is:

<table>
<thead>
<tr>
<th></th>
<th>Gable, Inc.</th>
<th>Harlowe, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$800,000</td>
<td>$800,000</td>
</tr>
<tr>
<td>Variable costs</td>
<td>400,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Contribution margin</td>
<td>400,000</td>
<td>600,000</td>
</tr>
<tr>
<td>Fixed costs</td>
<td>200,000</td>
<td>400,000</td>
</tr>
<tr>
<td>Income from operations</td>
<td>$200,000</td>
<td>$200,000</td>
</tr>
</tbody>
</table>

A. 0.18  
**B. 5.50**  
C. 1.22  
D. 12.5

66. The following information is for Gable, Inc. and Harlowe, Inc. for the recent year.

Based on the above data, which company has a higher operating leverage?

A. Gable, Inc.  
B. Harlowe, Inc.  
C. Operating leverage is the same for both companies  
D. Cannot be determined
67. The following information is for Gable, Inc. and Harlowe, Inc. for the recent year.

<table>
<thead>
<tr>
<th></th>
<th>Gable, Inc.</th>
<th>Harlowe, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$800,000</td>
<td>$800,000</td>
</tr>
<tr>
<td>Variable costs</td>
<td>400,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Contribution margin</td>
<td>400,000</td>
<td>600,000</td>
</tr>
<tr>
<td>Fixed costs</td>
<td>200,000</td>
<td>400,000</td>
</tr>
<tr>
<td>Income from operations</td>
<td>$200,000</td>
<td>$200,000</td>
</tr>
</tbody>
</table>

What total amount of net income will Harlowe, Inc. earn if it experiences a 10 percent increase in revenue?

A. $180,000  
B. $80,000  
C. $260,000  
D. $20,000  

68. Based on the above information, select the correct statement.

A. Cost of goods sold is a mixed cost.  
B. Salary cost is a mixed cost.  
C. Depreciation cost is a variable cost.  
D. If the company sells 20 units for $540 each, it will incur a loss of $200.  

AACSB: Analytic  
AICPA FN: Risk Analysis  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.  
Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.
69. Select the **incorrect** statement regarding fixed and variable costs.

A. Fixed cost per unit remains constant as the number of units increases.
B. Total variable cost is represented by a straight line sloping upward from the origin when total variable cost is graphed versus number of units.
C. The concept of relevant range applies to both fixed costs and variable costs.
D. The terms "fixed" and "variable" refer to the behavior of total cost.

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 2 Medium

Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.
Learning Objective: 02-05 Select an appropriate time period for calculating the average cost per unit.

70. The following information is for Companies M and N for the most recent year:

<table>
<thead>
<tr>
<th></th>
<th>Company M</th>
<th>Company N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$500,000</td>
<td>$500,000</td>
</tr>
<tr>
<td>Variable costs</td>
<td>$300,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>Fixed costs</td>
<td>$50,000</td>
<td>$150,000</td>
</tr>
</tbody>
</table>

Based on this information, select the **incorrect** statement

A. M's magnitude of operating leverage was lower than N's.
B. N would suffer more than M from an equal drop in sales revenue.
C. M's cost structure carries greater risk and greater potential for profit.
D. If N's sales increased by 20%, its net income would increase by 40%.

AACSB: Analytic
AICPA FN: Risk Analysis
Blooms: Analyze
Difficulty: 3 Hard

Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.
Learning Objective: 02-04 Calculate the magnitude of operating leverage.

71. Carson Corporation's sales increase from $500,000 to $600,000 in the current year. What is the percentage change in sales?

A. 20%  
B. 25%  
C. 22%  
D. 16.7%

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 2 Medium
72. Frazier Company sells women's ski jackets. The average sales price is $275 and the variable cost per jacket is $175. Fixed Costs are $1,350,000. If Frazier sells 15,000 jackets, the contribution margin will be:

A. $2,775,000  
B. $1,500,000  
C. $2,250,000  
D. $150,000

73. Mark Company, Inc. sells electronics. The company generated sales of $45,000. Contribution margin is $20,000 and net income is $4,000. Based on this information, the magnitude of operating leverage is:

A. 2.25 times  
B. 11.25 times  
C. 5 times  
D. 6.25 times

74. Which characteristic is true of the scatter graph method, high-low method, and regression analysis?

A. All methods will produce the same estimate of variable and fixed costs.  
B. All methods use historic data to estimate variable and fixed costs.  
C. All methods use only two data points in analyzing a mixed cost.  
D. None of these is true.
75. Taste of the Town, Inc. operates a gourmet sandwich shop. The company orders bread, cold cuts, and produce several times a week. If the cost of these items remains constant per customer served, the cost is said to be:

A. Variable
B. Fixed
C. Opportunity
D. Mixed

AACSB: Analytic
AICPA FN: Measurement
Blooms: Analyze
Difficulty: 2 Medium
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

76. The following income statement was produced when volume of sales was at 400 units.

<table>
<thead>
<tr>
<th>Sales Revenue</th>
<th>$ 2,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable Cost</td>
<td>1,200</td>
</tr>
<tr>
<td>Contribution Margin</td>
<td>$ 800</td>
</tr>
<tr>
<td>Fixed Cost</td>
<td>300</td>
</tr>
<tr>
<td>Net Income</td>
<td>$ 500</td>
</tr>
</tbody>
</table>

If volume reaches 500 units, net income will be:

A. $625
B. $1,800
C. $700
D. None of these

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Analyze
Difficulty: 2 Medium
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

77. All of the following would be considered a fixed cost for a bottled water company except:

A. Rent on warehouse facility
B. Depreciation on its manufacturing equipment
C. Hourly wages for machine operators
D. Property taxes on its factory building

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 1 Easy
True / False Questions

78. The variable cost per unit increases in direct proportion to the activity base.

FALSE

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 2 Medium
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

79. If managers of a company do not understand the behavior of its costs, they are likely to make poor decisions about the company's operations.

TRUE

AACSB: Analytic
AICPA FN: Decision Making
Blooms: Understand
Difficulty: 1 Easy
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

80. For a mixed cost, total cost increases in direct proportion to volume.

FALSE

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Analyze
Difficulty: 2 Medium
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

81. The total variable cost increases in direct proportion to volume.

TRUE

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 2 Medium
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.
82. If a company had a mixed cost structure, every dollar of revenue after covering the fixed costs would be pure profit.

**FALSE**

AACSB: Analytic  
AICPA BB: Critical Thinking  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

83. As activity increases, the fixed cost per unit increases while the variable cost per unit remains constant.

**FALSE**

AACSB: Analytic  
AICPA BB: Critical Thinking  
Blooms: Analyze  
Difficulty: 2 Medium  
Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.

84. Risk refers to the possibility that sacrifices may exceed benefits.

**TRUE**

AACSB: Analytic  
AICPA FN: Risk Analysis  
Blooms: Remember  
Difficulty: 1 Easy  
Learning Objective: 02-02 Demonstrate the effects of operating leverage on profitability.

85. Operating leverage enables a company to convert small changes in fixed costs into dramatic changes in profitability.

**FALSE**

AACSB: Analytic  
AICPA FN: Risk Analysis  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 02-02 Demonstrate the effects of operating leverage on profitability.

86. If a company shifts its cost structure by decreasing fixed costs and increasing variable costs, it will lower both the level of risk and its potential for profits.

**TRUE**

AACSB: Analytic  
AICPA FN: Risk Analysis  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 02-02 Demonstrate the effects of operating leverage on profitability.
87. If revenues are expected to decline, management should attempt to convert its variable costs into fixed costs.

**FALSE**

AACSB: Analytic
AICPA FN: Risk Analysis
Blooms: Understand
Difficulty: 2 Medium

Learning Objective: 02-02 Demonstrate the effects of operating leverage on profitability.

88. Companies with low operating leverage will experience lower profits when sales increase than will companies with higher operating leverage.

**TRUE**

AACSB: Analytic
AICPA FN: Risk Analysis
Blooms: Understand
Difficulty: 2 Medium

Learning Objective: 02-02 Demonstrate the effects of operating leverage on profitability.

89. A company with a completely fixed cost structure will have operating leverage of 1.

**FALSE**

AACSB: Analytic
AICPA FN: Reporting
Blooms: Apply
Difficulty: 2 Medium

Learning Objective: 02-02 Demonstrate the effects of operating leverage on profitability.

90. Contribution margin represents the amount available to cover fixed expenses and then provide company profits.

**TRUE**

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
Blooms: Remember
Difficulty: 1 Easy

Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.

91. No contribution margin is provided by selling one unit of a product at a price of $35 if variable production costs are $20, variable general and administrative costs are $5, and fixed costs are $10 per unit.

**FALSE**

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Analyze
Difficulty: 2 Medium

Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.
92. The contribution margin format income statement is not widely used for external financial reporting, but is allowed by GAAP.

**FALSE**

AACSB: Reflective Thinking
AICPA BB: Industry
Blooms: Remember
Difficulty: 1 Easy

Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.

93. The contribution margin format income statement classifies costs according to their behavior patterns.

**TRUE**

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
Blooms: Remember
Difficulty: 1 Easy

Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.

94. Contribution margin can only be determined if costs are separated into product and period costs.

**FALSE**

AACSB: Reflective Thinking
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 2 Medium

Learning Objective: 02-03 Prepare an income statement using the contribution margin approach.

95. If a company has both fixed and variable costs, their operating leverage will always be greater than 1.

**TRUE**

AACSB: Analytic
AICPA FN: Risk Analysis
Blooms: Understand
Difficulty: 3 Hard

Learning Objective: 02-04 Calculate the magnitude of operating leverage.

96. The higher the magnitude of a company’s operating leverage, the more benefit the company will receive from a given percentage increase in revenue.

**TRUE**

AACSB: Analytic
AICPA FN: Risk Analysis
Blooms: Understand
Difficulty: 2 Medium
97. The higher the magnitude of a company's operating leverage, the smaller the decrease in profit for a given percentage decrease in revenue.

**FALSE**

AACSB: Analytic
AICPA FN: Risk Analysis
Blooms: Understand
Difficulty: 3 Hard

Learning Objective: 02-04 Calculate the magnitude of operating leverage.

98. A low magnitude of operating leverage is best for most companies.

**FALSE**

AACSB: Analytic
AICPA FN: Risk Analysis
Blooms: Understand
Difficulty: 2 Medium

Learning Objective: 02-04 Calculate the magnitude of operating leverage.

99. The BRC Company is considering the introduction of a new line of high end electronics. Because there is considerable uncertainty with regard to the demand for the products, the company would probably be served better by a variable cost structure.

**TRUE**

AACSB: Analytic
AICPA FN: Decision Making
AICPA FN: Risk Analysis
Blooms: Analyze
Difficulty: 3 Hard

Learning Objective: 02-04 Calculate the magnitude of operating leverage.

100. Descriptions of cost behavior as fixed or variable pertain to a particular range of activity.

**TRUE**

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 2 Medium

Learning Objective: 02-04 Calculate the magnitude of operating leverage.

101. Variable costs will become fixed outside the relevant range.

**FALSE**

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 2 Medium

Learning Objective: 02-04 Calculate the magnitude of operating leverage.
102. Within the relevant range, the fixed cost per unit can be expected to decrease with increases in volume.

**TRUE**

AACSB: Analytic  
AICPA BB: Critical Thinking  
Blooms: Understand  
Difficulty: 2 Medium  

*Learning Objective: 02-04 Calculate the magnitude of operating leverage.*

103. The activity base selected determines whether a cost behaves as a variable cost or fixed cost.

**TRUE**

AACSB: Analytic  
AICPA BB: Critical Thinking  
Blooms: Understand  
Difficulty: 2 Medium  

*Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.*

104. A cost that is considered variable for one activity base may be considered fixed for a different activity base.

**TRUE**

AACSB: Analytic  
AICPA BB: Critical Thinking  
Blooms: Understand  
Difficulty: 2 Medium  

*Learning Objective: 02-04 Calculate the magnitude of operating leverage.*

105. One reason for computing the average cost for a product rather than the actual cost is that average cost is easier to compute.

**TRUE**

AACSB: Analytic  
AICPA BB: Critical Thinking  
Blooms: Understand  
Difficulty: 1 Easy  

*Learning Objective: 02-05 Select an appropriate time period for calculating the average cost per unit.*

106. One way that computing an average cost per unit facilitates management decision making is that managers are provided more timely and more relevant cost information.

**TRUE**

AACSB: Analytic  
AICPA BB: Critical Thinking  
Blooms: Understand  
Difficulty: 1 Easy  

*Learning Objective: 02-05 Select an appropriate time period for calculating the average cost per unit.*
107. Potential problems associated with cost averaging can be reduced by averaging the cost over a shorter span of time.

FALSE

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Understand
Difficulty: 2 Medium

Learning Objective: 02-05 Select an appropriate time period for calculating the average cost per unit.

108. A cost that is part selling cost and part manufacturing cost is referred to as a mixed cost.

FALSE

AACSB: Analytic
AICPA BB: Critical Thinking
Blooms: Remember
Difficulty: 2 Medium

Learning Objective: 02-01 Identify and describe fixed; variable; and mixed cost behavior.
Learning Objective: 02-06 Use the high-low method; scattergraphs; and regression analysis to estimate fixed and variable costs.

109. When selecting the high and low observations under the high-low method of analyzing mixed costs, the selection should be based on the dependent variable (cost).

FALSE

AACSB: Analytic
AICPA BB: Industry
Blooms: Apply
Difficulty: 2 Medium

Learning Objective: 02-06 Use the high-low method; scattergraphs; and regression analysis to estimate fixed and variable costs.

110. When using least-squares regression to determine variable and fixed costs, the r-square refers to the degree to which the change in the dependent variable can be explained by a change in the independent variable.

TRUE

AACSB: Analytic
AICPA BB: Industry
Blooms: Understand
Difficulty: 2 Medium

Learning Objective: 02-06 Use the high-low method; scattergraphs; and regression analysis to estimate fixed and variable costs.

111. An advantage of using the scattergraph method over the high-low method is that all points of data are used in determining the cost line.

TRUE

AACSB: Analytic
AICPA BB: Industry
Blooms: Understand
Difficulty: 1 Easy
Learning Objective: 02-06 Use the high-low method; scattergraphs; and regression analysis to estimate fixed and variable costs.

112. Multiple regression analysis should be performed when a single independent variable influences multiple dependent variables.

**FALSE**

AACSB: Analytic  
AICPA BB: Industry  
Blooms: Analyze  
Difficulty: 3 Hard

Learning Objective: 02-06 Use the high-low method; scattergraphs; and regression analysis to estimate fixed and variable costs.

113. In regression analysis, an r-square value of one indicates that there is a perfect fit between the independent and dependent variables.

**TRUE**

AACSB: Analytic  
AICPA BB: Industry  
Blooms: Understand  
Difficulty: 2 Medium

Learning Objective: 02-06 Use the high-low method; scattergraphs; and regression analysis to estimate fixed and variable costs.

114. A disadvantage of the high-low method is that the high point and low point may not be representative of the total data set available.

**TRUE**

AACSB: Analytic  
AICPA BB: Critical Thinking  
Blooms: Understand  
Difficulty: 1 Easy

Learning Objective: 02-06 Use the high-low method; scattergraphs; and regression analysis to estimate fixed and variable costs.