## Additional Practice Questions

**Circle the best answer for each of the following questions:**

T F 1. Suppose fewer units are sold in year 2 than in year 1. If production exceeds sales in year 2, net operating income under absorption costing could be higher in year 2 than in year 1..

T F 2. Under the variable costing method, a company can increase profits by increasing production rather than by increasing sales.

T F 3. When reconciling variable costing and absorption costing net operating income, fixed manufacturing overhead costs deferred in inventory under absorption costing should be added to variable costing net operating income to arrive at the absorption costing net operating income.

T F 4. When 50,000 units are produced the fixed cost is $10 per unit. Therefore, when 100,000 units are produced fixed costs will remain at $10 per unit.

T F 5. Period costs are reported as an asset when incurred and expensed on the income statement when the product is sold.

T F 6. Both direct labor and Indirect labor are product (inventoriable) costs.

7. If the level of activity increases within the relevant range:
   A) variable cost per unit will remain constant.
   B) fixed cost per unit will decrease.
   C) total cost will increase but total fixed cost will remain constant.
   D) All of the above
   E) None of the above.

8. Last year, Craft Company had a net operating income of $80,000 using absorption costing and $74,500 using variable costing. The fixed manufacturing overhead cost has been $5 per unit for the last three years. If 21,500 units were produced last year, then sales last year were:
   A) 16,000 units.
   B) 20,400 units.
   C) 22,600 units.
   D) 27,000 units.

9. Total manufacturing costs equal
   a. direct materials + prime costs.
   b. direct materials + conversion costs.
   c. direct manufacturing labor costs + prime costs.
   d. direct manufacturing labor costs + conversion costs.

10. Wheel and Tire Manufacturing has plant capacity for 3,000 tires. The company currently produces 1,000 tires per month. The following per unit data apply for sales to regular customers:

| | |
|---|---|
| Direct materials | $20 |
| Direct manufacturing labor | 3 |
| Variable manufacturing overhead | 6 |
| Fixed manufacturing overhead | 10 |
| Total manufacturing costs | $39 |

The company is considering expanding production next month to 2,000 tires. What is the total cost of producing 2,000 tires?

a. $39,000
b. $78,000
c. $68,000
d. $62,000
e. None of the above

11. Kym Manufacturing provided the following information for last month: Variable cost ratio = 1/3, fixed costs=$1,000 and Operating income = $7,000. If sales double next month, what is the projected operating income?

a. $14,000
b. $15,000
c. $18,000
d. $19,000
e. Cannot be calculated from the given information.

12. Manufacturing overhead costs may include all EXCEPT

a. salaries of the plant janitorial staff.
b. labor that can be traced to individual products.
c. wages paid for unproductive time due to machine breakdowns.
d. overtime premiums paid to plant workers due to machine breakdown.
e. None of the above

13. Debated items that some companies include as direct manufacturing labor include

a. fringe benefits.
b. vacation pay.
c. training time.
d. all of the above.
e. None of the above

14. Brenda Hicks is paid $10 an hour for straight-time and $15 an hour for overtime. One week she worked 42 hours, which included 2 hours of idle time. Compensation would be reported as
    a. $400 of direct labor and $30 of manufacturing overhead.
    b. $400 of direct labor and $zero of manufacturing overhead.
    c. $420 of direct labor and $10 of manufacturing overhead.
    d. $430 of direct labor and $zero of manufacturing overhead.

15. The following data are available from accounting records of Dan Smith Co.

| Month | Miles | Total Cost |
|---|---|---|
| January | 80,000 | $190,000 |
| February | 50,000 | 100,000 |
| March | 70,000 | 120,000 |
| April | 90,000 | 160,000 |

In applying the high-low method, what is the fixed cost?
    a. $25,000.
    b. $40,000.
    c. $20,000.
    d. $50,000.
    e. None of the above

16. This year, Roberts Company's income under absorption costing was $2,000 lower than its income under variable costing. The company sold 8,000 units during the year, and its variable costs were $8 per unit, of which $2 was variable selling expense. If production cost was $10 per unit under absorption costing, then how many units did the company produce during the year?
    A) 7,500 units.
    B) 7,000 units.
    C) 9,000 units.
    D) 8,500 units.

17. High-low and regression cost estimation methods are alike in that they both:
    A) have an intercept term and a slope term.
    B) have an intercept term but not a slope term.
    C) have a slope term but not an intercept term.
    D) use all data points.
    E) use only a few selected data points.

18. An R-squared value that approaches one (1.0) would indicate:
    A) an average degree of explanatory power.
    B) a low degree of explanatory power.
    C) a high degree of explanatory power.
    D) the presence of outliers.
    E) the absence of outliers.

19. Nellibell's Café bakes croissants that are sold to local restaurants and grocery stores in the Columbia, South Carolina area. When 600 croissants are baked, the average cost is $0.70. When 720 croissants are baked, the average cost is $0.65. What is the total cost when 670 croissants are baked?
    A) $568.
    B) $588.
    C) $448.
    D) $532.
    E) $500

**Use the following to answer the next two questions:**

Felinas Inc. produces floor mats for cars and trucks. The owner, Kenneth Felinas, asked you to assist him in estimating his maintenance costs. Together, Mr. Felinas and you determined that the single best cost driver for maintenance costs was machine hours. Below are data from the previous fiscal year for maintenance expense and machine hours:

| Month | Maintenance Expense | Machine Hours |
|---|---|---|
| 1 | $3,120 | 2,200 |
| 2 | 3,310 | 2,300 |
| 3 | 3,490 | 2,400 |
| 4 | 3,620 | 2,430 |
| 5 | 3,620 | 2,280 |
| 6 | 3,680 | 2,440 |
| 7 | 3,610 | 2,420 |
| 8 | 3,420 | 2,390 |
| 9 | 3,140 | 2,210 |
| 10 | 2,880 | 2,080 |
| 11 | 2,780 | 1,690 |
| 12 | 2,940 | 2,070 |

20. Using the high-low method, unit variable cost is calculated to be:
    A) $1.31.
    B) $1.59.
    C) $1.36.
    D) $1.14.
    E) $1.20.

21. Using the high-low method, total monthly fixed cost is calculated to be:
    A) $484.
    B) $364.
    C) $752.
    D) $259.
    E) $898.

22. Which of the following statements is (are) correct?
   A. Overtime premiums may be treated as a component of manufacturing overhead.
   B. Overtime premiums may be treated as a component of direct labor.
   C. Idle time should be treated as a component of indirect labor.
   D. All of the above statements are correct.
   E. None of the above.

23. Rodney Worsham is paid $10 an hour for straight-time and $15 an hour for overtime. One week he worked 45 hours, which included 40 hours of regular time and 5 hours of overtime. The 5 hours of overtime include 3 hours of idle caused by material shortages and 2 hours resulted from bad scheduling. Labor cost would be reported as:
   a. $370 of direct labor and $105 of manufacturing overhead.
   b. $420 of direct labor and $55 of manufacturing overhead.
   c. $450 of direct labor and $25 of manufacturing overhead.
   d. $445 of direct labor and $30 of manufacturing overhead.
   e. None of the above.

**Use the following information to answer the next three questions**

For its first year of operation, PQR Corporation disclosed the following information:

| | |
|---|---|
| Net sales | $100,000 |
| Direct materials | $20,000 |
| Direct labour | $10,000 |
| Variable factory overhead | $7,000 |
| Fixed factory overhead | $3,000 |
| Variable selling expenses | $10,000 |
| Fixed selling expenses | $10,000 |
| Variable administrative expenses | $13,000 |
| Fixed administrative expenses | $17,000 |
| Units produced | 100,000 units |
| Units sold | 60,000 units |

24. The amount of product and period costs under absorption system are:

   a. $37,000 and $53,000
   b. $40,000 and $50,000
   c. $50,000 and $40,000
   d. $53,000 and $37,000
   e. None of the above

25. The amount of total variable costs are:

   a. $37,000
   b. $40,000
   c. $50,000
   d. $60,000
   e. None of the above

26. The amount of total fixed costs are:

a. $37,000
b. $30,000
c. $50,000
d. $60,000
e. None of the above

27. The following information pertains to Payton's Shoe manufacturing:

| | |
|---|---|
| Manufacturing costs | $1,000,000 |
| Shoes manufactured | 100,000 pairs |
| Beginning inventory | 0 pairs |

99, 500 pairs of shoes are sold during the year for $18.

What is the amount of gross profit?

a. $ 995,000
b. $1,000,000
c. $1,791,000
d. $ 796,000
e. None of the above

**Use the following information for the next two questions:**

Assume the following cost information for Quayle Corporation

| | |
|---|---|
| Total fixed costs | $50,000 |
| Variable costs (per unit) | $50 |
| Selling price (per unit) | $90 |
| Tax rate | 40 percent |

28. What volume of sales dollars is required to earn an after-tax net income of $15,000?

a. $196,875
b. $157,500
c. $135,000
d. $168,750
e. None of the above

29. If fixed costs increased by 10 percent, and management wanted to maintain the original break-even point, then the selling price per unit would have to be increased to
    a. $99
    b. $130
    c. $94
    d. $97
    e. None of the above

30. Sanderson sells a single product for $50 that has a variable cost of $30. Fixed costs amount to $5 per unit when anticipated sales targets are met. If the company sells one unit in excess of its break-even volume, the bottom-line profit will be:
    A. $15.
    B. $20.
    C. $50.
    D. an amount that cannot be derived based on the information presented.
    E. an amount other than those in choices "A," "B," and "C" but one that can be derived based on the information presented.

31. LMS has a break-even point of 40,000 units. If the firm's sole product sells for $20 and fixed costs total $240,000, the variable cost per unit must be:
    A. $6.
    B. $8.
    C. $14.
    D. an amount that cannot be derived based on the information presented.
    E. an amount other than those in choices "A," "B," and "C" but one that can be derived based on the information presented.

32. A recent income statement of East Corporation reported the following data:

| | |
|---|---|
| Units sold | 5,000 |
| Sales revenue | $5,000,000 |
| Variable costs | 3,000,000 |
| Fixed costs | 800,000 |

    If the company desired to earn a target net profit of $820,000, it would have to sell:
    A. 2,000 units.
    B. 2,050 units.
    C. 4,050 units.
    D. 6,750 units.
    E. an amount other than those given above.

33. Yellow, Inc., sells a single product. Variable costs ratio is 40%. and fixed costs total $120,000. What dollar sales level would Yellow have to achieve to earn a target net profit of $240,000?
    A. $400,000.
    B. $500,000.
    C. $600,000.
    D. $750,000.
    E. None of the above.

34. Dana sells a single product at $20 per unit. The firm's most recent income statement revealed unit sales of 100,000, variable costs of $800,000, and fixed costs of $400,000. If a $4 drop in selling price will boost unit sales volume by 20%, the company will experience:
    A. no change in profit because a 20% drop in sales price is balanced by a 20% increase in volume.
    B. an $80,000 drop in profitability.
    C. a $240,000 drop in profitability.
    D. a $400,000 drop in profitability.
    E. a change in profitability other than those given above.

35. Grimes is studying the profitability of a change in operation and has gathered the following information:

| | Current Operation | Anticipated Operation |
|---|---|---|
| Fixed costs | $38,000 | $48,000 |
| Selling price | $16 | $22 |
| Variable cost | $10 | $12 |
| Sales (units) | 9,000 | 6,000 |

    Should Grimes make the change?
    A. Yes, the company will be better off by $6,000.
    B. No, because sales will drop by 3,000 units.
    C. No, because the company will be worse off by $4,000.
    D. No, because the company will be worse off by $22,000.
    E. It is impossible to judge because additional information is needed.

36. Abbott Company sells gas lawn mowers at a selling Price of $60 per mower. The breakeven point sales level for the company was $12000 when the total fixed costs were $4000. The variable cost per unit is — and the total variable cost is____at the breakeven

    a. $20; $8,000
    b. $40; $8,000
    c. $20; $4.000
    d. $40; $4,000
    e. None of the above.

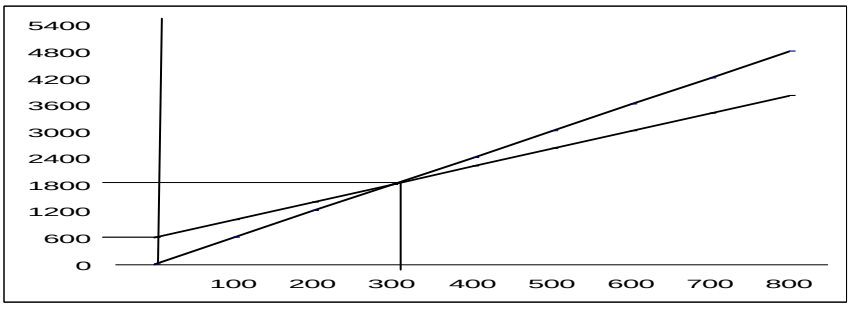
37. Gleason sells a single product at $14 per unit. The firm's most recent income statement revealed unit sales of 80,000, variable costs of $800,000, and fixed costs of $560,000. Management believes that a $3 drop in selling price will boost unit sales volume by 20%. Which of the following correctly depicts how these two changes will affect the company's break-even point?

| | Drop in Sales Price | Increase in Sales Volume |
|---|---|---|
| A. | Increase | Increase |
| B. | Increase | Decrease |
| C. | Increase | No effect |
| D. | Decrease | Increase |
| E. | Decrease | Decrease |

38. Changes in each of the following would affect the breakeven point except

a. variable cost per unit
b. sales price per unit
c. total fixed cost
d. number of units sold
e. None of the above.

39. The following graph is available for Bill Co. (X axis = sales units)




If Bill is currently selling 500 units, what would be his net profit after tax, where tax rate is 25%?

a. $750
b. $400
c. $1,000
d. $ 300
e. None of the above

40. Consider the following for Columbia Street Manufacturing:

| | |
|---|---|
| Change in finished goods inventory | $985 increase |
| Change in work-in-process inventory | $350 decrease |
| Total manufacturing costs | $900 |

What are the cost of goods manufactured and cost of goods sold?

| | Cost of goods manufactured | Cost of goods sold |
|---|---|---|
| A) | $ 885 | $1,050 |
| B) | $1,250 | $ 265 |
| C) | $1,525 | $ 925 |
| D) | $1,250 | $ 565 |

**Use the following to answer the next two questions:**

**Given for the M & M Company:**

| | |
|---|---|
| Gross profit | $ 500 |
| Fixed selling and administration expenses | 200 |
| Fixed manufacturing overhead | 100 |
| Net profit | 250 |
| Sales | 1,100 |

There were no beginning or ending inventories.

41. What is the CGS under variable costing system?
    a) $500
    b) $600
    c) $550
    d) Can not be determined from the available information.
    e) None of the above

42. What is the contribution margin for the company?

    a) $500
    b) $550
    c) $750
    d) $700
    e) None of the above

**Problems**

P. 1. Oakmark recently sold 70,000 units, generating sales revenue of $4,900,000. The company's variable cost per unit and total fixed cost amounted to $20 and $2,800,000, respectively. Management is in the process of studying the dollar impact of various transactions and events, and desires answers to the following independent cases:

Case no. 1: Management wants to lower the firm's break-even point to 52,000 units. All other things being equal, what must happen to fixed costs to achieve this objective?

Case no. 2: The company anticipates a $2 hike in the variable cost per unit. All other things being equal, if management desires to keep the firm's current break-even point, what must happen to Oakmark's selling price? If selling price remains constant, what must happen to the firm's total fixed costs?

Required:

A. Answer the two cases raised by management.

B. Determine the impact (increase, decrease, or no effect) of the following operating changes on the items cited:

1. An increase in variable selling costs on net income.
2. A decrease in direct material cost on the unit contribution margin.
3. A decrease in the number of units sold on the break-even point.

Problem 2:

Query Company sells pillows for $25.00 each. The manufacturing cost, all variable, is $10 per pillow. The company is planning on renting an exhibition booth for both display and selling purposes at the annual crafts and art convention. The convention coordinator allows three options for each participating company. They are:

1. paying a fixed booth fee of $5,010, or
2. paying an $4,000 fee plus 10% of revenue made at the convention, or
3. paying 20% of revenue made at the convention.

**Required:**

a. Compute the breakeven sales in pillows of each option.

b. Which option should Query Company choose, assuming sales are expected to be 800 pillows?

Answer Key

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| **T** | **F** | **T** | **F** | **F** | **F** | **D** | **B** | **B** | **C** | **B** |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| **B** | **D** | **A** | **A** | **A** | **A** | **C** | **C** | **E** | **C** | **D** |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| **B** | **B** | **D** | **B** | **D** | **D** | **C** | **B** | **C** | **C** | **C** |
| 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | | |
| **C** | **C** | **B** | **C** | **D** | **D** | **B** | **A** | **B** | | |

Problem 1-Answer:

A.

Case no. 1:

Selling price per unit: $4,900,000 ÷ 70,000 units = $70

Unit contribution margin: $70 - $20 = $50

Current break-even point: $2,800,000 ÷ $50 = 56,000 units

New level of fixed cost: X ÷ $50 = 52,000 units; X = $2,600,000

Fixed costs must decrease by $200,000 ($2,800,000 - $2,600,000).

Case no. 2:

To keep the same break-even point, the contribution margin must remain at $50. Thus, the selling price must increase to $72 to offset the $2 hike in variable cost.

Break-even: Fixed cost ÷ $48 = 56,000 units; fixed cost = $2,688,000

Fixed costs must fall by $112,000 ($2,800,000 - $2,688,000) if the selling price remains constant.

B.

1. Decrease
2. Increase
3. No effect

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**Problem 2:Answer**

a. Option 1 N = Breakeven in pillows

$25N - $10N - $5,010 = 0

$15N - $5,010 = 0

N = $5,010/$15 = 334 pillows

Option 2 N = Breakeven in pillows

$25N - $10N - 0.10($25N) - $4,000 = 0

$12.5N - $4,000 = 0

N = $4,000/$12.5 = 320 pillows

Option 3 N = Breakeven in pillows

$25N - $10N - 0.20($25N) = 0

$10N - $0 = 0

N = $0/$10 = 0 pillows

b. Option 1 profit for 800 pillows = $15 x 800 - $5,010 = $6,990

Option 2 profit for 800 pillows = $12.5 x 800 - $4,000 = $6,000

Option 3 profit for 800 pillows = $10 x 800 = $8,000

Option 3 is the best choice.