

**Cost Accounting, 14e (Horngren/Datar/Rajan)**

**Chapter 7 Flexible Budgets, Direct-Cost Variances, and Management Control**

Objective 7.1

1) The master budget is:

- A) a flexible budget
- B) a static budget
- C) developed at the end of the period
- D) based on the actual level of output

Answer: B

Diff: 1

Terms: static budget

Objective: 1

AACSB: Reflective thinking

2) A flexible budget:

- A) is another name for management by exception
- B) is developed at the end of the period
- C) is based on the budgeted level of output
- D) provides favorable operating results

Answer: B

Diff: 1

Terms: flexible budget

Objective: 1

AACSB: Reflective thinking

3) Management by exception is the practice of concentrating on:

- A) the master budget
- B) areas not operating as anticipated
- C) favorable variances
- D) unfavorable variances

Answer: B

Diff: 1

Terms: management by exception

Objective: 1

AACSB: Reflective thinking

4) A variance is:

- A) the gap between an actual result and a benchmark amount
- B) the required number of inputs for one standard output
- C) the difference between an actual result and a budgeted amount
- D) the difference between a budgeted amount and a standard amount

Answer: C

Diff: 1

Terms: variance

Objective: 1

AACSB: Reflective thinking

- 5) An unfavorable variance indicates that:
- A) actual costs are less than budgeted costs
  - B) actual revenues exceed budgeted revenues
  - C) the actual amount decreased operating income relative to the budgeted amount
  - D) All of these answers are correct.

Answer: C

Diff: 2

Terms: unfavorable variance

Objective: 1

AACSB: Reflective thinking

- 6) A favorable variance indicates that:
- A) budgeted costs are less than actual costs
  - B) actual revenues exceed budgeted revenues
  - C) the actual amount decreased operating income relative to the budgeted amount
  - D) All of these answers are correct.

Answer: B

Diff: 2

Terms: favorable variance

Objective: 1

AACSB: Reflective thinking

Answer the following questions using the information below:

Bowden Corporation used the following data to evaluate their current operating system. The company sells items for \$20 each and used a budgeted selling price of \$20 per unit.

	<u>Actual</u>	<u>Budgeted</u>
Units sold	46,000 units	45,000 units
Variable costs	\$225,400	\$216,000
Fixed costs	\$47,500	\$50,000

- 7) What is the static-budget variance of revenues?

- A) \$20,000 favorable
- B) \$20,000 unfavorable
- C) \$2,000 favorable
- D) \$2,000 unfavorable

Answer: A

Explanation: A)  $(46,000 \text{ units} \times \$20) - (45,000 \text{ units} \times \$20) = \$20,000 \text{ F}$

Diff: 2

Terms: static-budget variance

Objective: 1

AACSB: Analytical skills

8) What is the static-budget variance of variable costs?

- A) \$1,200 favorable
- B) \$9,400 unfavorable
- C) \$20,000 favorable
- D) \$1,200 unfavorable

Answer: B

Explanation: B)  $\$225,400 - \$216,000 = \$9,400$  U

Diff: 2

Terms: static-budget variance

Objective: 1

AACSB: Analytical skills

9) What is the static-budget variance of operating income?

- A) \$10,600 favorable
- B) \$10,600 unfavorable
- C) \$13,100 favorable
- D) \$13,100 unfavorable

Answer: C

Explanation:

C)	<b><u>Actual</u></b> <b><u>Results</u></b>	<b><u>Static</u></b> <b><u>Budget</u></b>	<b><u>Static-budget</u></b> <b><u>Variance</u></b>	
Units sold	<u>46,000</u>	<u>45,000</u>		
Revenues	\$920,000	\$900,000	\$20,000	F
Variable costs	<u>225,400</u>	<u>216,000</u>	<u>9,400</u>	U
Contribution margin	\$694,600	\$684,000	10,600	F
Fixed costs	<u>47,500</u>	<u>50,000</u>	<u>(2,500)</u>	F
Operating income	<u>\$647,100</u>	<u>\$634,000</u>	<u>\$13,100</u>	F

Diff: 2

Terms: static-budget variance

Objective: 1

AACSB: Analytical skills

Answer the following questions using the information below:

Caan Corporation used the following data to evaluate their current operating system. The company sells items for \$20 each and used a budgeted selling price of \$20 per unit.

	<u>Actual</u>	<u>Budgeted</u>
Units sold	200,000 units	203,000 units
Variable costs	\$1,250,000	\$1,500,000
Fixed costs	\$ 925,000	\$ 900,000

10) What is the static-budget variance of revenues?

- A) \$60,000 favorable
- B) \$60,000 unfavorable
- C) \$6,000 favorable
- D) \$6,000 unfavorable

Answer: B

Explanation: B)  $(200,000 \text{ units} \times \$20) - (203,000 \text{ units} \times \$20) = \$60,000 \text{ U}$

Diff: 2

Terms: static-budget variance

Objective: 1

AACSB: Analytical skills

11) What is the static-budget variance of variable costs?

- A) \$200,000 favorable
- B) \$50,000 unfavorable
- C) \$250,000 favorable
- D) \$250,000 unfavorable

Answer: C

Explanation: C)  $\$1,250,000 - \$1,500,000 = \$250,000 \text{ F}$

Diff: 2

Terms: static-budget variance

Objective: 1

AACSB: Analytical skills

12) What is the static-budget variance of operating income?

- A) \$165,000 favorable
- B) \$190,000 unfavorable
- C) \$60,000 favorable
- D) \$60,000 unfavorable

Answer: A

	<u>Actual Results</u>	<u>Static Budget</u>	<u>Static-budget Variance</u>	
Units sold	<u>200,000</u>	<u>203,000</u>		
Revenues	\$4,000,000	\$4,060,000	\$(60,000)	U
Variable costs	<u>1,250,000</u>	<u>1,500,000</u>	<u>(250,000)</u>	F
Contribution margin	\$2,750,000	\$2,560,000	190,000	F
Fixed costs	<u>925,000</u>	<u>900,000</u>	<u>25,000</u>	U
Operating income	<u>\$1,825,000</u>	<u>\$1,660,000</u>	<u>\$165,000</u>	F

Diff: 2

Terms: static-budget variance

Objective: 1

AACSB: Analytical skills

Answer the following questions using the information below:

Everclean Filter Corporation used the following data to evaluate their current operating system. The company sells items for \$10 each and had used a budgeted selling price of \$11 per unit.

	<u>Actual</u>	<u>Budgeted</u>
Units sold	306,000 units	300,000 units
Variable costs	\$965,000	\$950,000
Fixed costs	\$ 53,000	\$ 50,000

13) What is the static-budget variance of revenues?

- A) \$60,000 favorable
- B) \$30,000 unfavorable
- C) \$30,000 favorable
- D) \$6,000 favorable

Answer: C

Explanation: C)  $(306,000 \text{ units} \times \$10) - (300,000 \text{ units} \times \$11) = \$30,000 \text{ F}$

Diff: 2

Terms: static-budget variance

Objective: 1

AACSB: Analytical skills

14) What is the static-budget variance of variable costs?

- A) \$13,000 favorable
- B) \$13,000 unfavorable
- C) \$15,000 favorable
- D) \$15,000 unfavorable

Answer: D

Explanation: D)  $\$965,000 - \$950,000 = \$15,000$  U

Diff: 2

Terms: static-budget variance

Objective: 1

AACSB: Analytical skills

15) What is the static-budget variance of operating income?

- A) \$12,000 unfavorable
- B) \$12,000 favorable
- C) \$15,000 favorable
- D) \$15,000 unfavorable

Answer: B

Diff: 2

Terms: static-budget variance

Objective: 1

AACSB: Analytical skills

16) Regier Company had planned for operating income of \$10 million in the master budget but actually achieved operating income of only \$7 million.

- A) The static-budget variance for operating income is \$3 million favorable.
- B) The static-budget variance for operating income is \$3 million unfavorable.
- C) The flexible-budget variance for operating income is \$3 million favorable.
- D) The flexible-budget variance for operating income is \$3 million unfavorable.

Answer: B

Diff: 2

Terms: static-budget variance, flexible-budget variance

Objective: 1

AACSB: Analytical skills

17) The master budget is one type of flexible budget.

Answer: FALSE

Explanation: The master budget is a *static* budget.

Diff: 1

Terms: flexible budget

Objective: 1

AACSB: Reflective thinking

18) A flexible budget is calculated at the end of the budget period.

Answer: TRUE

Diff: 1

Terms: flexible budget

Objective: 1

AACSB: Reflective thinking

19) Information regarding the causes of variances is provided when the master budget is compared with actual results.

Answer: FALSE

Explanation: Little information regarding the causes of variances is provided when the master budget is compared with actual results because you are comparing a budget for one level of activity with actual costs for a different level of activity.

Diff: 2

Terms: variance

Objective: 1

AACSB: Reflective thinking

20) A variance is the difference between the actual cost for the current and expected (or budgeted) performance.

Answer: TRUE

Diff: 2

Terms: variance

Objective: 1

AACSB: Reflective thinking

21) A favorable variance results when actual costs exceed budgeted costs.

Answer: FALSE

Explanation: An *unfavorable* variance results when actual costs exceed budgeted costs.

Diff: 2

Terms: favorable variance

Objective: 1

AACSB: Reflective thinking

22) Management by exception is the practice of concentrating on areas not operating as anticipated (such as a cost overrun) and placing less attention on areas operating as anticipated.

Answer: TRUE

Diff: 1

Terms: management by exception

Objective: 1

AACSB: Reflective thinking

23) The essence of variance analysis is to capture a departure from what was expected.

Answer: TRUE

Diff: 1

Terms: variance

Objective: 1

AACSB: Reflective thinking

24) A favorable variance should be ignored by management.

Answer: FALSE

Explanation: Favorable variance investigation may lead to improved production methods, other discoveries for future opportunities, or not be good news at all and adversely affect other variances.

Diff: 1

Terms: favorable variance

Objective: 1

AACSB: Reflective thinking

25) An unfavorable variance may be due to poor planning rather than due to inefficiency.

Answer: TRUE

Diff: 2

Terms: unfavorable variance

Objective: 1

AACSB: Communication

26) Explain the difference between a static budget and a flexible budget. Explain what is meant by a static budget variance and a flexible budget variance.

Answer: A static budget is one based on the level of output planned at the start of the budget period. A flexible budget calculates budgeted revenue and budgeted costs based on the actual output in the budget period. The only difference between the static budget and the flexible budget is that the static budget is prepared for the planned output, whereas the flexible budget is prepared based on the actual output.

A static budget variance is the difference between the actual results and the corresponding budgeted amounts in the static budget. A flexible-budget variance is the difference between an actual result and the corresponding flexible-budget amount based on the actual output in the budget period.

Diff: 2

Terms: static budget, flexible budget

Objective: 1

AACSB: Reflective thinking

Objective 7.2

1) The flexible budget contains:

- A) budgeted amounts for actual output
- B) budgeted amounts for planned output
- C) actual costs for actual output
- D) actual costs for planned output

Answer: A

Diff: 1

Terms: flexible budget

Objective: 2

AACSB: Reflective thinking

2) The following items are the same for the flexible budget and the master budget EXCEPT for:

- A) variable cost per unit
- B) total fixed costs
- C) units sold
- D) sales price per unit

Answer: C

Diff: 2

Terms: flexible budget

Objective: 2

AACSB: Reflective thinking



- 3) The sales-volume variance is due to:
- A) using a different selling price from that budgeted
  - B) inaccurate forecasting of units sold
  - C) poor production performance
  - D) Both A and B are correct.

Answer: B

Diff: 2

Terms: sales-volume variance

Objective: 2

AACSB: Reflective thinking

- 4) An unfavorable sales-volume variance could result from:
- A) decreased demand for the product
  - B) competitors taking market share
  - C) customer dissatisfaction with the product
  - D) All of these answers are correct.

Answer: D

Diff: 2

Terms: sales-volume variance

Objective: 2

AACSB: Reflective thinking

- 5) If a sales-volume variance was caused by poor-quality products, then the \_\_\_\_\_ would be in the best position to explain the variance.

- A) production manager
- B) sales manager
- C) purchasing manager
- D) management accountant

Answer: A

Diff: 2

Terms: sales-volume variance

Objective: 2

AACSB: Reflective thinking

- 6) The variance that is best for measuring operating performance is the:
- A) static-budget variance
  - B) flexible-budget variance
  - C) sales-volume variance
  - D) selling-price variance

Answer: B

Diff: 2

Terms: flexible-budget variance

Objective: 2

AACSB: Reflective thinking

7) An unfavorable flexible-budget variance for variable costs may be the result of:

- A) using more input quantities than were budgeted
- B) paying higher prices for inputs than were budgeted
- C) selling output at a higher selling price than budgeted
- D) Both A and B are correct.

Answer: D

Diff: 3

Terms: flexible-budget variance

Objective: 2

AACSB: Reflective thinking

8) An unfavorable variance:

- A) may suggest investigation is needed
- B) is conclusive evidence of poor performance
- C) demands that standards be recomputed
- D) indicates continuous improvement is needed

Answer: A

Diff: 2

Terms: unfavorable variance

Objective: 2

AACSB: Reflective thinking

9) All of the following are needed to prepare a flexible budget EXCEPT determining the:

- A) budgeted variable cost per output unit
- B) budgeted fixed costs
- C) actual selling price per unit
- D) actual quantity of output units

Answer: C

Diff: 3

Terms: flexible budget

Objective: 2

AACSB: Reflective thinking

10) The variance that LEAST affects cost control is the:

- A) flexible-budget variance
- B) direct-material-price variance
- C) sales-volume variance
- D) direct manufacturing labor efficiency variance

Answer: C

Diff: 2

Terms: sales-volume variance

Objective: 2

AACSB: Reflective thinking

11) A flexible-budget variance is \$600 favorable for unit-related costs. This indicates that costs were:

- A) \$600 more than the master budget
- B) \$600 less than for the planned level of activity
- C) \$600 more than standard for the achieved level of activity
- D) \$600 less than standard for the achieved level of activity

Answer: D

Diff: 2

Terms: flexible-budget variance

Objective: 2

AACSB: Analytical skills

Answer the following questions using the information below:

JJ Abrams planned to use \$164 of material per unit but actually used \$160 of material per unit, and planned to make 1,200 units but actually made 1,000 units.

12) The flexible-budget amount is:

- A) \$160,000
- B) \$164,000
- C) \$192,000
- D) \$196,800

Answer: B

Explanation: B)  $1,000 \text{ units} \times \$164 = \$164,000$

Diff: 2

Terms: flexible budget

Objective: 2

AACSB: Analytical skills

13) The flexible-budget variance is:

- A) \$4,000 favorable
- B) \$28,000 unfavorable
- C) \$32,800 unfavorable
- D) \$4,800 favorable

Answer: A

Explanation: A)  $(\$160 - \$164) \times 1,000 = \$4,000 \text{ F}$

Diff: 2

Terms: flexible-budget variance

Objective: 2

AACSB: Analytical skills

14) The sales-volume variance is:

- A) \$4,000 favorable
- B) \$28,000 unfavorable
- C) \$32,800 unfavorable
- D) \$4,800 favorable

Answer: C

Explanation: C)  $(1,000 - 1,200) \times \$164 = \$32,800$  U

Diff: 2

Terms: sales-volume variance

Objective: 2

AACSB: Analytical skills

15) Bebee Corporation currently produces cardboard boxes in an automated process. Expected production per month is 40,000 units, direct-material costs are \$0.60 per unit, and manufacturing overhead costs are \$18,000 per month. Manufacturing overhead is all fixed costs. What is the flexible budget for 20,000 and 40,000 units, respectively?

- A) \$21,000; \$33,000
- B) \$21,000; \$42,000
- C) \$30,000; \$42,000
- D) None of these answers are correct.

Answer: C

Explanation: C)	<u>20,000 units</u>	<u>40,000 units</u>
Materials (\$0.60)	\$ 12,000	\$24,000
Machinery	<u>18,000</u>	<u>18,000</u>
	<u>\$30,000</u>	<u>\$42,000</u>

Diff: 2

Terms: flexible budget

Objective: 2

AACSB: Analytical skills

Answer the following questions using the information below:

Brennen Incorporated planned to use \$24 of material per unit but actually used \$25 of material per unit, and planned to make 2,000 units but actually made 2,400 units.

16) The flexible-budget amount is:

- A) \$48,000
- B) \$50,000
- C) \$57,600
- D) \$60,000

Answer: C

Explanation: C)  $2,400 \text{ units} \times \$24 = \$57,600$

Diff: 2

Terms: flexible budget

Objective: 2

AACSB: Analytical skills

17) The flexible-budget variance is:

- A) \$9,600 favorable
- B) \$2,400 unfavorable
- C) \$10,000 unfavorable
- D) \$12,000 favorable

Answer: B

Explanation: B)  $(\$25 - \$24) \times 2,400 = \$2,400$  U

Diff: 2

Terms: flexible-budget variance

Objective: 2

AACSB: Analytical skills

18) The sales-volume variance is:

- A) \$9,600 favorable
- B) \$2,400 unfavorable
- C) \$10,000 unfavorable
- D) \$12,000 favorable

Answer: A

Explanation: A)  $(2,400 - 2,000) \times \$24 = \$9,600$  F

Diff: 2

Terms: sales-volume variance

Objective: 2

AACSB: Analytical skills

Answer the following questions using the information below:

Melville Incorporated planned to use \$37.50 of material per unit but actually used \$36.75 of material per unit, and planned to make 1,800 units but actually made 1,600 units.

19) The flexible-budget amount is:

- A) \$60,000
- B) \$67,500
- C) \$59,200
- D) \$1,200

Answer: A

Explanation: A)  $1,600 \text{ units} \times \$37.50 = \$60,000$

Diff: 2

Terms: flexible budget

Objective: 2

AACSB: Analytical skills

20) The flexible-budget variance is:

- A) \$7,500 favorable
- B) \$7,500 unfavorable
- C) \$1,200 unfavorable
- D) \$1,200 favorable

Answer: D

Explanation: D)  $(\$36.75 - \$37.50) \times 1,600 = \$1,200$  F

Diff: 2

Terms: flexible-budget variance

Objective: 2

AACSB: Analytical skills

21) The sales-volume variance is:

- A) \$7,500 favorable
- B) \$7,500 unfavorable
- C) \$1,200 unfavorable
- D) \$1,200 favorable

Answer: B

Explanation: B)  $(1,600 - 1,800) \times \$37.50 = \$7,500$  U

Diff: 2

Terms: sales-volume variance

Objective: 2

AACSB: Analytical skills

22) Hemberger Corporation currently produces baseball caps in an automated process. Expected production per month is 20,000 units, direct material costs are \$3.00 per unit, and manufacturing overhead costs are \$46,000 per month. Manufacturing overhead is entirely fixed costs. What is the flexible budget for 10,000 and 20,000 units, respectively?

- A) \$53,000; \$83,000
- B) \$53,000; \$106,000
- C) \$76,000; \$106,000
- D) None of these answers are correct.

Answer: C

Explanation: C)

	<u>10,000 units</u>	<u>20,000 units</u>
Materials (\$3.00)	\$30,000	\$60,000
Machinery	<u>46,000</u>	<u>46,000</u>
	<u>\$76,000</u>	<u>\$106,000</u>

Diff: 2

Terms: flexible budget

Objective: 2

AACSB: Analytical skills

Answer the following questions using the information below:

The actual information pertains to the month of September. As part of the budgeting process, Kriger Fencing Company developed the following static budget for September. Kriger is in the process of preparing the flexible budget and understanding the results.

	<b><u>Actual Results</u></b>	<b><u>Flexible Budget</u></b>	<b><u>Static Budget</u></b>
Sales volume (in units)	<u>10,000</u>	<u>          </u>	<u>12,500</u>
Sales revenues	\$500,000	\$ _____	\$625,000
Variable costs	<u>256,000</u>	\$ _____	<u>300,000</u>
Contribution margin	244,000	\$ _____	325,000
Fixed costs	<u>229,000</u>	\$ _____	<u>225,000</u>
Operating profit	<u>\$ 15,000</u>	\$ _____	<u>\$ 100,000</u>

23) The flexible budget will report \_\_\_\_\_ for variable costs.

- A) \$256,000
- B) \$300,000
- C) \$240,000
- D) \$320,000

Answer: C

Explanation: C)  $10,000 \text{ units} \times \$300,000/12,500 = \$240,000$

Diff: 2

Terms: flexible budget

Objective: 2

AACSB: Analytical skills

24) The flexible budget will report \_\_\_\_\_ for the fixed costs.

- A) \$229,000
- B) \$225,000
- C) \$180,000
- D) \$286,250

Answer: B

Explanation: B) \$225,000, given in the static budget

Diff: 2

Terms: flexible budget

Objective: 2

AACSB: Analytical skills

25) The flexible-budget variance for variable costs is:

- A) \$16,000 unfavorable
- B) \$60,000 unfavorable
- C) \$16,000 favorable
- D) \$60,000 favorable

Answer: A

Explanation: A)  $\$256,000 - (10,000 \times \$300,000/12,500) = \$16,000$  U

Diff: 2

Terms: flexible-budget variance

Objective: 2

AACSB: Analytical skills

26) The only difference between the static budget and flexible budget is that the static budget is prepared using planned output.

Answer: TRUE

Diff: 2

Terms: static budget, flexible budget

Objective: 2

AACSB: Reflective thinking

27) The static-budget variance can be subdivided into the flexible-budget variance and the sales-volume variance.

Answer: TRUE

Diff: 2

Terms: static-budget variance, sales-volume variance, flexible-budget variance

Objective: 2

AACSB: Reflective thinking

28) The flexible-budget variance may be the result of inaccurate forecasting of units sold.

Answer: FALSE

Explanation: The *sales-volume* variance is the result of inaccurate forecasting of units sold.

Diff: 3

Terms: flexible-budget variance

Objective: 2

AACSB: Reflective thinking

29) Decreasing demand for a product may create a favorable sales-volume variance.

Answer: FALSE

Explanation: Decreasing demand for a product may create an *unfavorable* sales-volume variance.

Diff: 2

Terms: sales-volume variance

Objective: 2

AACSB: Reflective thinking



30) An unfavorable variance is conclusive evidence of poor performance.

Answer: FALSE

Explanation: An unfavorable variance suggests further investigation, not conclusive evidence of poor performance.

Diff: 2

Terms: unfavorable variance

Objective: 2

AACSB: Reflective thinking

31) A company would NOT need to use a flexible budget if it had perfect foresight about actual output units.

Answer: TRUE

Diff: 2

Terms: flexible budget

Objective: 2

AACSB: Reflective thinking

32) The flexible-budget variance for direct-cost inputs is subdivided into two detailed variances, the efficiency variance and the price variance.

Answer: TRUE

Diff: 1

Terms: flexible-budget variance

Objective: 2

AACSB: Reflective thinking

33) The president of the company, Gregory Peters, has come to you for help. Use the following data to prepare a flexible budget for possible sales/production levels of 10,000, 11,000, and 12,000 units. Show the contribution margin at each activity level.

Sales price	\$24 per unit
Variable costs:	
Manufacturing	\$12 per unit
Administrative	\$ 3 per unit
Selling	\$ 1 per unit
Fixed costs:	
Manufacturing	\$60,000
Administrative	\$20,000

Answer:

**Flexible Budget for Various Levels  
of Sales/Production Activity**

<u>Units</u>	<u>10,000</u>	<u>11,000</u>	<u>12,000</u>
Sales	<u>\$240,000</u>	<u>\$264,000</u>	<u>\$288,000</u>
Variable costs:			
Manufacturing	120,000	132,000	144,000
Administrative	30,000	33,000	36,000
Selling	<u>10,000</u>	<u>11,000</u>	<u>12,000</u>
Total variable costs	<u>160,000</u>	<u>176,000</u>	<u>192,000</u>
Contribution margin	80,000	88,000	96,000
Fixed costs:			
Manufacturing	60,000	60,000	60,000
Administrative	<u>20,000</u>	<u>20,000</u>	<u>20,000</u>
Operating income/(loss)	<u>\$ -0-</u>	<u>\$ 8,000</u>	<u>\$ 16,000</u>

Diff: 2

Terms: flexible budget

Objective: 2

AACSB: Analytical skills

34) Nicholas Company manufacturers TVs. Some of the company's data was misplaced. Use the following information to replace the lost data:

	<b>Actual Results</b>	<b>Flexible Variances</b>	<b>Flexible Budget</b>	<b>Sales-Volume Variances</b>	<b>Static Budget</b>
Analysis					
Units Sold	112,500		112,500		103,125
Revenues	\$42,080	\$1,000 F	(A)	\$1,400 U	(B)
Variable Costs	(C)	\$200 U	\$15,860	\$2,340 F	\$18,200
Fixed Costs	\$8,280	\$860 F	\$9,140		\$9,140
Operating Income	\$17,740	(D)	\$16,080	(E)	\$15,140

**Required:**

- What are the respective flexible-budget revenues (A)?
- What are the static-budget revenues (B)?
- What are the actual variable costs (C)?
- What is the total flexible-budget variance (D)?
- What is the total sales-volume variance (E)?
- What is the total static-budget variance?

Answer:

- $\$42,080 - \$1,000 = \$41,080$
- $\$41,080 + \$1,400 = \$42,480$
- $\$15,860 + \$200 = \$16,060$
- $\$17,740 - \$16,080 = \$1,660$  favorable
- $\$2,340$  favorable +  $\$1,400$  unfavorable =  $\$940$  favorable
- $\$17,740 - \$15,140 = \$2,600$  favorable

Diff: 2

Terms: flexible/static budget; static-budget/flexible-budget/sales-volume variance

Objective: 2

AACSB: Analytical skills

Objective 7.3

Answer the following questions using the information below:

The actual information pertains to the month of September. As part of the budgeting process, Kriger Fencing Company developed the following static budget for September. Kriger is in the process of preparing the flexible budget and understanding the results.

	<b><u>Actual Results</u></b>	<b><u>Flexible Budget</u></b>	<b><u>Static Budget</u></b>
Sales volume (in units)	<u>10,000</u>	<u>          </u>	<u>12,500</u>
Sales revenues	\$500,000	\$	\$625,000
Variable costs	<u>256,000</u>	\$ <u>          </u>	<u>300,000</u>
Contribution margin	244,000	\$	325,000
Fixed costs	<u>229,000</u>	\$ <u>          </u>	<u>225,000</u>
Operating profit	<u>\$ 15,000</u>	\$ <u>          </u>	<u>\$ 100,000</u>

1) The primary reason for low operating profits was:

- A) the variable-cost variance
- B) increased fixed costs
- C) a poor management accounting system
- D) lower sales volume than planned

Answer: D

Diff: 3

Terms: sales-volume variance

Objective: 3

AACSB: Analytical skills

Answer the following questions using the information below:

The actual information pertains to the third quarter. As part of the budgeting process, the Duck Decoy Department of Wooden Figurines Incorporated had developed the following static budget for the third quarter. Duck Decoy is in the process of preparing the flexible budget and understanding the results.

	<b><u>Actual Results</u></b>	<b><u>Flexible Budget</u></b>	<b><u>Static Budget</u></b>
Sales volume (in units)	<u>13,000</u>	<u>          </u>	<u>12,000</u>
Sales revenues	\$257,500	\$ _____	\$250,000
Variable costs	<u>154,000</u>	\$ _____	<u>175,000</u>
Contribution margin	103,500	\$ _____	75,000
Fixed costs	<u>50,500</u>	\$ _____	<u>49,500</u>
Operating profit	<u>\$ 53,000</u>	\$ _____	<u>\$ 25,500</u>

2) The flexible budget will report \_\_\_\_\_ for variable costs.

- A) \$154,000
- B) \$189,583
- C) \$175,000
- D) \$13,583

Answer: B

Explanation: B)  $13,000 \text{ units} \times \$175,000/12,000 = \$189,583$

Diff: 2

Terms: flexible budget

Objective: 3

AACSB: Analytical skills

3) The flexible budget will report \_\_\_\_\_ for the fixed costs.

- A) \$50,500
- B) \$49,500 Favorable
- C) \$49,500
- D) \$1,000 Unfavorable

Answer: C

Explanation: C) \$49,500, given in the static budget

Diff: 2

Terms: flexible budget

Objective: 3

AACSB: Analytical skills

4) The flexible-budget variance for variable costs is:

- A) \$21,000 favorable
- B) \$13,583 unfavorable
- C) \$35,583 unfavorable
- D) \$35,583 favorable

Answer: D

Explanation: D)  $[(13,000 \times \$175,000/12,000)] - \$154,000 = \$35,583$  F

Diff: 2

Terms: flexible-budget variance

Objective: 3

AACSB: Analytical skills

5) The primary reason for high actual operating profits was:

- A) the variable-cost variance
- B) increased fixed costs
- C) higher sales volume than planned
- D) lower sales volume than planned

Answer: A

Diff: 3

Terms: sales-volume variance

Objective: 3

AACSB: Analytical skills

Answer the following questions using the information below:

Manash Company manufactures tires. Some of the company's data was misplaced. Use the following information to replace the lost data:

	Actual Results	Flexible Budget Variances	Flexible Budget	Sales-Volume Variances	Static Budget
Units sold	450,000		450,000		412,500
Revenues	\$168,320	\$4,000 F	(A)	\$5,600 U	(B)
Variable costs	(C)	\$800 U	\$63,440	\$9,360 F	\$72,800
Fixed costs	\$33,120	\$3,440 F	\$36,560	0	\$36,560
Operating income	\$70,960	(D)	\$64,320	(E)	\$60,560

6) What amounts are reported for revenues in the flexible-budget (A) and the static-budget (B), respectively?

- A) \$164,320; \$158,720
- B) \$164,320; \$169,920
- C) \$169,920; \$177,920
- D) \$169,920; \$166,720

Answer: B

Diff: 2

Terms: flexible budget

Objective: 3

AACSB: Analytical skills

7) What are the actual variable costs (C)?

- A) \$72,800
- B) \$64,240
- C) \$62,640
- D) \$54,080

Answer: B

Diff: 2

Terms: flexible budget

Objective: 3

AACSB: Analytical skills

8) What is the total flexible-budget variance (D)?

- A) \$240 unfavorable
- B) \$0
- C) \$1,360 favorable
- D) \$6,640 favorable

Answer: D

Diff: 2

Terms: flexible-budget variance

Objective: 3

AACSB: Analytical skills

9) What is the total sales-volume variance (E)?

- A) \$14,960 unfavorable
- B) \$5,600 unfavorable
- C) \$3,760 favorable
- D) \$14,960 favorable

Answer: C

Diff: 2

Terms: sales-volume variance

Objective: 3

AACSB: Analytical skills

10) What is the total static-budget variance?

- A) \$10,400 favorable
- B) \$6,640 favorable
- C) \$3,760 unfavorable
- D) \$3,760 favorable

Answer: A

Diff: 2

Terms: static-budget variance

Objective: 3

AACSB: Analytical skills

11) The flexible-budget variance pertaining to revenues is often called a selling-price variance.

Answer: TRUE

Diff: 1

Terms: flexible-budget variance

Objective: 3

AACSB: Reflective thinking

12) Cost control is the focus of the sales-volume variance.

Answer: FALSE

Explanation: The sales-volume variance is not a measure of cost, but rather a measure of actual output units differing from budgeted output units.

Diff: 2

Terms: sales-volume variance

Objective: 3

AACSB: Reflective thinking



13) Bach Table Company manufactures tables for schools. The 2011 operating budget is based on sales of 40,000 units at \$50 per table. Operating income is anticipated to be \$120,000. Budgeted variable costs are \$32 per unit, while fixed costs total \$600,000.

Actual income for 2011 was a surprising \$354,000 on actual sales of 42,000 units at \$52 each. Actual variable costs were \$30 per unit and fixed costs totaled \$570,000.

**Required:**

Prepare a variance analysis report with both flexible-budget and sales-volume variances.

Answer:

Bach Table Company  
Variance Analysis

	<b>Actual Results</b>	<b>Flexible Variances</b>	<b>Flexible Budget</b>	<b>Sales- Volume Variances</b>	<b>Static Budget</b>
Units sold	<u>42,000</u>		<u>42,000</u>		<u>40,000</u>
Sales	\$2,184,000	\$84,000 F	\$2,100,000	\$100,000 F	\$2,000,000
Variable costs	<u>1,260,000</u>	<u>84,000 F</u>	<u>1,344,000</u>	<u>64,000 U</u>	<u>1,280,000</u>
Contribution margin	\$924,000	\$168,000 F	\$756,000	\$36,000 F	\$720,000
Fixed costs	<u>570,000</u>	<u>30,000 F</u>	<u>600,000</u>	<u>0</u>	<u>600,000</u>
Operating income	<u>\$354,000</u>	<u>\$198,000 F</u>	<u>\$156,000</u>	<u>\$36,000 F</u>	<u>\$120,000</u>

Total flexible-budget variance = \$198,000 favorable.

Total sales-volume variance = \$36,000 favorable.

Diff: 2

Terms: static budget, flexible-budget variance, sales-volume variance

Objective: 2, 3

AACSB: Analytical skills

Objective 7.4

1) The flexible-budget variance for direct cost inputs can be further subdivided into a:

- A) static-budget variance and a sales-volume variance
- B) sales-volume variance and an efficiency variance
- C) price variance and an efficiency variance
- D) static-budget variance and a price variance

Answer: C

Diff: 1

Terms: flexible-budget variance

Objective: 4

AACSB: Analytical skills

2) Budgeted input quantity information may be obtained from:

- A) actual input quantities used last period
- B) standards developed by your company
- C) data from other companies that have similar processes
- D) All of these answers are correct.

Answer: D

Diff: 1

Terms: standard input

Objective: 4

AACSB: Reflective thinking

3) When actual input data from past periods is used to develop a budget:

- A) past inefficiencies are excluded
- B) expected future changes are incorporated
- C) information is available at a low cost
- D) audited financial information must be used

Answer: C

Diff: 2

Terms: standard cost

Objective: 4

AACSB: Reflective thinking

4) When standards are used to develop a budget:

- A) past inefficiencies are excluded
- B) benchmarking must also be used
- C) information is available at a low cost
- D) flexible-budget amounts are difficult to determine

Answer: A

Diff: 2

Terms: standard cost

Objective: 4

AACSB: Reflective thinking

5) The term budget indicates:

- A) that standards have been used to develop the budget
- B) that actual input data from past periods have been used to develop the budget
- C) that engineering studies have been used to develop the budget
- D) planned amounts for a future accounting period

Answer: D

Diff: 1

Terms: static budget

Objective: 4

AACSB: Reflective thinking

6) A standard input:

- A) is a carefully determined price, cost, or quantity
- B) is usually expressed on a per unit basis
- C) may be developed using engineering studies
- D) All of these answers are correct.

Answer: D

Diff: 1

Terms: standard input

Objective: 4

AACSB: Reflective thinking

7) Ideal standards:

- A) assume peak operating conditions
- B) allow for normal machine breakdowns
- C) greatly improve employee motivation and performance
- D) All of these answers are correct..

Answer: A

Diff: 1

Terms: standard cost

Objective: 4

AACSB: Reflective thinking

Answer the following questions using the information below:

Diana Industries, Inc. (DII), developed standard costs for direct material and direct labor. In 2010, DII estimated the following standard costs for one of their major products, the 10-gallon plastic container.

	<u>Budgeted quantity</u>	<u>Budgeted price</u>
Direct materials	0.10 pounds	\$30 per pound
Direct labor	0.05 hours	\$15 per hour

During June, DII produced and sold 10,000 containers using 980 pounds of direct materials at an average cost per pound of \$32 and 500 direct manufacturing labor-hours at an average wage of \$15.25 per hour.

8) June's direct material efficiency variance is:

- A) \$1,860 unfavorable
- B) \$600 favorable
- C) \$1,360 favorable
- D) None of these answers are correct.

Answer: B

Explanation: B)  $\$30 \times (980 - 1,000) = \$600$  F

Diff: 2

Terms: efficiency variance

Objective: 4

AACSB: Analytical skills

9) Managers generally have more control over price variances than efficiency variances.

Answer: FALSE

Explanation: Managers generally have more control over efficiency variances because efficiency variances are primarily affected by internal factors, whereas price changes may be influenced by market factors.

Diff: 3

Terms: efficiency variance, price variance

Objective: 4

AACSB: Reflective thinking

10) To prepare budgets based on actual data from past periods is preferred since past inefficiencies are EXCLUDED.

Answer: FALSE

Explanation: A deficiency of using budgeted input quantity information based on actual quantity data from past periods is that past inefficiencies are included.

Diff: 2

Terms: static budget

Objective: 4

AACSB: Reflective thinking

11) All budgets are based on standard costs.

Answer: FALSE

Explanation: Budgets may be based on standard costs, actual amounts from last year, or data from other companies.

Diff: 2

Terms: standard cost

Objective: 4

AACSB: Reflective thinking

12) A standard is attainable through efficient operations but allows for normal disruptions such as machine breakdowns and defective production.

Answer: TRUE

Diff: 3

Terms: standard cost

Objective: 4

AACSB: Reflective thinking

13) One advantage of using standard times to develop a budget is they are simple to compile, are based solely on the past actual history, and do NOT require expected future changes to be taken into account.

Answer: FALSE

Explanation: An advantage of using standard times is they aim to take into account changes expected to occur in the budget period.

Diff: 3

Terms: standard

Objective: 4

AACSB: Reflective thinking

14) The textbook discusses three levels of variances, Level 0, Level 1, Level 2, and Level 3. Briefly explain the meaning of each of those levels and provide an example of a variance at each of those levels.  
Answer: A Level 0 variance is simply the difference between actual operating income and planned operating income in the static budget.

A Level 1 variance would be any of the differences between the static budget and the actual results that make up operating income. Examples of such differences could include the following items:

Units sold	(Static budget - actual)
Revenues	(Static budget - actual)
Material costs	(Static budget - actual)
Direct manufacturing labor	(Static budget - actual)
Variable manufacturing overhead	(Static budget - actual)
Contribution margin	(Static budget - actual)
Fixed costs	(Static budget - actual)

A Level 2 variance subdivides the level 0 variance (which is the total of the Level 1 variances) into a sales volume variance and a flexible-budget variance. The sales volume variance is the difference between the flexible budget amount and the corresponding static budget amount. The flexible budget variance is an actual result and the corresponding flexible budget amount based on the actual output level in the budget period. Specific examples of Level 2 variances could include any of the items shown in the list of Level 1 variances.

A Level 3 variance would include price variances that reflect the difference between the actual input price and a budgeted input price, such as the direct material price variance, the direct labor rate variance, and the variable overhead rate variance. Level 3 variances would also include efficiency variances that reflect the difference between an actual input quantity and a budgeted input quantity. Examples would include material quantity variances, labor efficiency variances, and variable overhead efficiency variances.

Diff: 3

Terms: variance

Objective: 2, 3, 4

AACSB: Reflective thinking

Objective 7.5

1) A favorable price variance for direct materials indicates that:

- A) a lower price than planned was paid for materials
- B) a higher price than planned was paid for materials
- C) less material was used during production than planned for actual output
- D) more material was used during production than planned for actual output

Answer: A

Diff: 2

Terms: price variance

Objective: 5

AACSB: Reflective thinking

2) A favorable efficiency variance for direct manufacturing labor indicates that:

- A) a lower wage rate than planned was paid for direct labor
- B) a higher wage rate than planned was paid for direct labor
- C) less direct manufacturing labor-hours were used during production than planned for actual output
- D) more direct manufacturing labor-hours were used during production than planned for actual output

Answer: C

Diff: 2

Terms: efficiency variance

Objective: 5

AACSB: Reflective thinking

3) An unfavorable price variance for direct materials might indicate:

- A) that the purchasing manager purchased in smaller quantities due to a change to just-in-time inventory methods
- B) congestion due to scheduling problems
- C) that the purchasing manager skillfully negotiated a better purchase price
- D) that the market had an unexpected oversupply of those materials

Answer: A

Diff: 3

Terms: price variance

Objective: 5

AACSB: Reflective thinking

4) A favorable efficiency variance for direct materials might indicate:

- A) that lower-quality materials were purchased
- B) an overskilled workforce
- C) poor design of products or processes
- D) a lower-priced supplier was used

Answer: B

Diff: 3

Terms: efficiency variance

Objective: 5

AACSB: Analytical skills

5) A favorable price variance for direct manufacturing labor might indicate that:

- A) employees were paid more than planned
- B) budgeted price standards are too tight
- C) underskilled employees are being hired
- D) an efficient labor force

Answer: C

Diff: 3

Terms: price variance

Objective: 5

AACSB: Analytical skills

6) An unfavorable efficiency variance for direct manufacturing labor might indicate that:

- A) work was efficiently scheduled
- B) machines were not properly maintained
- C) budgeted time standards are too lax
- D) more higher-skilled workers were scheduled than planned

Answer: B

Diff: 3

Terms: efficiency variance

Objective: 5

AACSB: Ethical reasoning

Answer the following questions using the information below:

Diana Industries, Inc. (DII), developed standard costs for direct material and direct labor. In 2010, DII estimated the following standard costs for one of their major products, the 10-gallon plastic container.

	<u>Budgeted quantity</u>	<u>Budgeted price</u>
Direct materials	0.10 pounds	\$30 per pound
Direct labor	0.05 hours	\$15 per hour

During June, DII produced and sold 10,000 containers using 980 pounds of direct materials at an average cost per pound of \$32 and 500 direct manufacturing labor-hours at an average wage of \$15.25 per hour.

7) June's direct material flexible-budget variance is:

- A) \$1,860 unfavorable
- B) \$600 favorable
- C) \$1,360 unfavorable
- D) None of these answers are correct.

Answer: C

Explanation: C)  $(980 \times \$32) - (10,000 \times 0.10 \times \$30) = \$1,360$  U

Diff: 2

Terms: flexible-budget variance

Objective: 5

AACSB: Analytical skills

8) June's direct material price variance is:

- A) \$1,960 unfavorable
- B) \$600 favorable
- C) \$1,360 favorable
- D) None of these answers are correct.

Answer: A

Explanation: A)  $980 \times (\$32 - \$30) = \$1,960$  U

Diff: 2

Terms: price variance

Objective: 5

AACSB: Analytical skills

9) June's direct manufacturing labor price variance is:

- A) \$125 unfavorable
- B) \$125 favorable
- C) \$7,623.50 unfavorable
- D) None of these answers are correct.

Answer: A

Explanation: A)  $500 \text{ dlh} \times (\$15.25 - \$15.00) = \$125 \text{ U}$

Diff: 2

Terms: price variance

Objective: 5

AACSB: Analytical skills

10) June's direct manufacturing labor efficiency variance is:

- A) \$125 unfavorable
- B) \$125 favorable
- C) \$7,623.50 unfavorable
- D) None of these answers are correct.

Answer: D

Explanation: D)  $500 \text{ dlh} - (10,000 \times 0.05) \times \$15 = \text{Zero}$

Diff: 2

Terms: efficiency variance

Objective: 5

AACSB: Analytical skills

Answer the following questions using the information below:

Sawyer Industries, Inc. (SII), developed standard costs for direct material and direct labor. In 2011, SII estimated the following standard costs for one of their major products, the 30-gallon heavy-duty plastic container.

	<u>Budgeted quantity</u>	<u>Budgeted price</u>
Direct materials	0.20 pounds	\$25 per pound
Direct labor	0.10 hours	\$15 per hour

During July, SII produced and sold 5,000 containers using 1,100 pounds of direct materials at an average cost per pound of \$24 and 525 direct manufacturing labor hours at an average wage of \$14.75 per hour.

11) July's direct material flexible-budget variance is:

- A) \$1,400 unfavorable
- B) \$21,100 favorable
- C) \$2,500 unfavorable
- D) None of these answers are correct.

Answer: A

Explanation: A)  $(1,100 \times \$24) - (5,000 \times 0.20 \times \$25) = \$1,400 \text{ U}$

Diff: 2

Terms: flexible-budget variance

Objective: 5

AACSB: Analytical skills



12) July's direct material price variance is:

- A) \$1,400 favorable
- B) \$1,100 favorable
- C) \$2,500 unfavorable
- D) None of these answers are correct.

Answer: B

Explanation: B)  $1,100 \times (\$24 - \$25) = \$1,100 \text{ F}$

Diff: 2

Terms: price variance

Objective: 5

AACSB: Analytical skills

13) July's direct material efficiency variance is:

- A) \$1,400 unfavorable
- B) \$1,100 favorable
- C) \$2,500 unfavorable
- D) None of these answers are correct.

Answer: C

Explanation: C)  $\$25 \times [1,100 - (5,000 \times 0.20)] = \$2,500 \text{ U}$

Diff: 2

Terms: efficiency variance

Objective: 5

AACSB: Analytical skills

14) July's direct manufacturing labor flexible-budget variance is:

- A) \$375.00 unfavorable
- B) \$131.25 favorable
- C) \$243.75 unfavorable
- D) None of these answers are correct.

Answer: C

Explanation: C)  $(525 \times \$14.75) - (5,000 \times 0.10 \times \$15) = \$243.75 \text{ U}$

Diff: 2

Terms: flexible-budget variance

Objective: 5

AACSB: Analytical skills

15) July's direct manufacturing labor price variance is:

- A) \$375.00 unfavorable
- B) \$131.25 favorable
- C) \$243.75 favorable
- D) None of these answers are correct.

Answer: B

Explanation: B)  $525 \text{ dlh} \times (\$14.75 - \$15.00) = \$131.25 \text{ F}$

Diff: 2

Terms: price variance

Objective: 5

AACSB: Analytical skills

16) July's direct manufacturing labor efficiency variance is:

- A) \$375.00 unfavorable
- B) \$131.25 favorable
- C) \$243.75 favorable
- D) None of these answers are correct.

Answer: A

Explanation: A)  $[525 \text{ dlh} - (5,000 \times 0.10)] \times \$15 = \$375 \text{ U}$

Diff: 2

Terms: efficiency variance

Objective: 5

AACSB: Analytical skills

Answer the following questions using the information below:

Apple Valley Orchards, Inc. (AVO), developed standard costs for direct material and direct labor. In 2011, AVO estimated the following standard costs for one of their most well loved products, the AVO classic Grandma's large apple pie which had a brown sugar coating on the top of the crust as well as including cranberry and mince ingredients in addition to the apples.

	<u>Budgeted quantity</u>	<u>Budgeted price</u>
Direct materials	1.5 pounds	\$7.25 per pound
Direct labor	0.25 hours	\$14.00 per hour

During September, AVO produced and sold 1,200 pies using 1,875 pounds of direct materials at an average cost per pound of \$7.00 and 280 direct labor hours at an average wage of \$14.25 per hour.

17) September's direct material flexible-budget variance is:

- A) \$100.00 unfavorable
- B) \$100.00 favorable
- C) \$75.00 unfavorable
- D) None of these answers are correct.

Answer: C

Explanation: C)  $(1,875 \times \$7.00) - (1,200 \times 1.5 \times \$7.25) = \$75.00 \text{ U}$

Diff: 2

Terms: flexible-budget variance

Objective: 5

AACSB: Analytical skills

18) September's direct material price variance is:

- A) \$468.75 favorable
- B) \$468.75 unfavorable
- C) \$75.00 unfavorable
- D) None of these answers are correct.

Answer: A

Explanation: A)  $1,875 \times (\$7.00 - \$7.25) = \$468.75 \text{ F}$

Diff: 2

Terms: price variance

Objective: 5

AACSB: Analytical skills

19) September's direct material efficiency variance is:

- A) \$468.75 favorable
- B) \$468.75 unfavorable
- C) \$543.75 favorable
- D) \$543.75 unfavorable

Answer: D

Explanation: D)  $\$7.25 \times [1,875 - (1,200 \times 1.5)] = \$543.75$  U

Diff: 2

Terms: efficiency variance

Objective: 5

AACSB: Analytical skills

20) September's direct labor flexible-budget variance is:

- A) \$210.00 favorable
- B) \$210.00 unfavorable
- C) \$280.00 favorable
- D) \$280.00 unfavorable.

Answer: A

Explanation: A)  $(280 \times \$14.25) - (1,200 \times 0.25 \times \$14) = \$210.00$  F

Diff: 2

Terms: flexible-budget variance

Objective: 5

AACSB: Analytical skills

21) September's direct labor price variance is:

- A) \$210.00 unfavorable
- B) \$210.00 favorable
- C) \$70.00 unfavorable
- D) \$70.00 favorable

Answer: C

Explanation: C)  $280 \text{ dlh} \times (\$14.25 - \$14.00) = \$70$  U

Diff: 2

Terms: price variance

Objective: 5

AACSB: Analytical skills

22) September's direct labor efficiency variance is:

- A) \$280.00 favorable
- B) \$280.00 unfavorable
- C) \$210.00 favorable
- D) \$210.00 unfavorable

Answer: A

Explanation: A)  $[280 \text{ dlh} - (1,200 \times 0.25)] \times \$14 = \$280$  F

Diff: 2

Terms: efficiency variance

Objective: 5

AACSB: Analytical skills

Answer the following questions using the information below:

These questions refer to flexible-budget variance formulas with the following descriptions for the variables: A = Actual; B = Budgeted; P = Price; Q = Quantity.

23) The best label for the formula  $(AQ - BQ) / BP$  is the:

- A) efficiency variance
- B) price variance
- C) total flexible-budget variance
- D) spending variance

Answer: A

Diff: 2

Terms: efficiency variance

Objective: 5

AACSB: Analytical skills

24) The best label for the formula  $(AP - BP) / AQ$  is the:

- A) efficiency variance
- B) price variance
- C) total flexible-budget variance
- D) spending variance

Answer: B

Diff: 2

Terms: price variance

Objective: 5

AACSB: Analytical skills

25) The best label for the formula  $[(AP)(AQ) - (BP)(AQ)]$  is the:

- A) efficiency variance
- B) price variance
- C) total flexible-budget variance
- D) spending variance

Answer: B

Diff: 2

Terms: price variance

Objective: 5

AACSB: Analytical skills

26) The best label for the formula  $[(AP)(AQ) - (BP)(BQ)]$  is the:

- A) efficiency variance.
- B) price variance
- C) total flexible-budget variance
- D) spending variance

Answer: C

Diff: 2

Terms: flexible-budget variance

Objective: 5

AACSB: Analytical skills

Answer the following questions using the information below:

Berman's Camera Shop has prepared the following flexible budget for September and is in the process of interpreting the variances. **F** denotes a favorable variance and **U** denotes an unfavorable variance.

	<b>Flexible Budget</b>	<b>Variations</b>	
		<b>Price</b>	<b>Efficiency</b>
Material A	\$40,000	\$1,000 <b>F</b>	\$3,000 <b>U</b>
Material B	60,000	500 <b>U</b>	1,500 <b>F</b>
Direct manufacturing labor	80,000	500 <b>U</b>	2,500 <b>F</b>

27) The most likely explanation of the above variances for Material A is that:

- A) a lower price than expected was paid for Material A
- B) higher-quality raw materials were used than were planned
- C) the company used a higher-priced supplier
- D) Material A used during September was \$2,000 less than expected

Answer: A

Diff: 3

Terms: price variance

Objective: 5

AACSB: Analytical skills

28) The actual amount spent for Material B was:

- A) \$58,000
- B) \$59,000
- C) \$60,000
- D) \$61,000

Answer: B

Explanation: B)  $\$60,000 + \$500 \text{ U} - \$1,500 \text{ F} = \$59,000$

Diff: 2

Terms: price variance

Objective: 5

AACSB: Analytical skills

29) The actual amount spent for direct manufacturing labor was:

- A) \$80,000
- B) \$83,000
- C) \$82,000
- D) \$78,000

Answer: D

Explanation: D)  $\$80,000 + \$500 \text{ U} - \$2,500 \text{ F} = \$78,000$

Diff: 2

Terms: price variance

Objective: 5

AACSB: Analytical skills

- 30) The most likely explanation of the above direct manufacturing labor variances is that:
- A) the average wage rate paid to employees was less than expected
  - B) employees did not work as efficiently as expected to accomplish the job
  - C) the company may have assigned more experienced employees this month than originally planned
  - D) management may have a problem with budget slack and might be using lax standards for both labor-wage rates and expected efficiency

Answer: C

Diff: 3

Terms: efficiency variance

Objective: 5

AACSB: Analytical skills

Answer the following questions using the information below:

Hector's Camera Shop has prepared the following flexible budget for September and is in the process of interpreting the variances. **F** denotes a favorable variance and **U** denotes an unfavorable variance.

	<b>Flexible Budget</b>	<b>Variances</b>	
		<b>Price</b>	<b>Efficiency</b>
Material A	\$20,000	\$1,000U	\$1,200F
Material B	30,000	500F	800U
Material C	40,000	1,400U	1,000F

- 31) The actual amount spent for Material A was:

- A) \$18,800
- B) \$20,200
- C) \$19,800
- D) \$21,000

Answer: C

Explanation: C)  $\$20,000 + 1,000 \text{ U} - \$1,200 \text{ F} = \$19,800$

Diff: 2

Terms: price variance

Objective: 5

AACSB: Analytical skills

- 32) The actual amount spent for Material B was:

- A) \$29,700
- B) \$30,800
- C) \$30,500
- D) \$30,300

Answer: D

Explanation: D)  $\$30,000 - \$500 \text{ F} + \$800 \text{ U} = \$30,300$

Diff: 2

Terms: price variance

Objective: 5

AACSB: Analytical skills

33) The explanation that lower-quality materials were purchased is most likely for:

- A) Material A
- B) Material B
- C) Material C
- D) both Material A and C

Answer: B

Diff: 3

Terms: efficiency variance

Objective: 5

AACSB: Analytical skills

34) The presumed cause of a material price variance will determine how a company responds.

Answer: TRUE

Diff: 1

Terms: price variance

Objective: 5

AACSB: Reflective thinking

35) The price variance is the difference between the actual price and the budgeted price of the input, multiplied by the actual quantity of input.

Answer: TRUE

Diff: 1

Terms: price variance

Objective: 5

AACSB: Reflective thinking

36) For any actual level of output, the efficiency variance is the difference between actual quantity of input used and the budgeted quantity of input allowed to produce actual output, multiplied by the budgeted price.

Answer: TRUE

Diff: 1

Terms: efficiency variance

Objective: 5

AACSB: Reflective thinking

37) The use of high-quality raw materials is likely to result in a favorable efficiency variance and an unfavorable price variance.

Answer: TRUE

Diff: 2

Terms: efficiency variance, price variance

Objective: 5

AACSB: Reflective thinking

38) The direct manufacturing labor price variance is likely to be unfavorable if lower-skilled workers are put on a job.

Answer: FALSE

Explanation: The direct manufacturing labor variance is likely to be favorable if lower-skilled workers are put on a job since they are usually also lower paid.

Diff: 2

Terms: price variance

Objective: 5

AACSB: Reflective thinking

39) Although computed separately, price variances and efficiency variances should NOT be analyzed separately from each other.

Answer: TRUE

Diff: 2

Terms: price variance, efficiency variance

Objective: 5

AACSB: Reflective thinking



40) Madzinga's Draperies manufactures curtains. A certain window requires the following:

Direct materials standard                      10 square yards at \$5 per yard  
Direct manufacturing labor standard 5 hours at \$10

During the second quarter, the company made 1,500 curtains and used 14,000 square yards of fabric costing \$68,600. Direct labor totaled 7,600 hours for \$79,800.

**Required:**

- a. Compute the direct materials price and efficiency variances for the quarter.
- b. Compute the direct manufacturing labor price and efficiency variances for the quarter.

Answer:

- a. Direct materials variances:

$$\begin{aligned}\text{Actual unit cost} &= \$68,600/14,000 \text{ square yards} \\ &= \$4.90 \text{ per square yard}\end{aligned}$$

$$\begin{aligned}\text{Price variance} &= 14,000 \times (\$5.00 - \$4.90) \\ &= \$1,400 \text{ favorable}\end{aligned}$$

$$\begin{aligned}\text{Efficiency variance} &= \$5.00 \times [14,000 - (1,500 \times 10)] \\ &= \$5,000 \text{ favorable}\end{aligned}$$

- b. Direct manufacturing labor variances:

$$\begin{aligned}\text{Actual labor rate} &= \$79,800/7,600 \\ &= \$10.50 \text{ per hour}\end{aligned}$$

$$\begin{aligned}\text{Price variance} &= 7,600 \times (\$10.50 - \$10.00) \\ &= \$3,800 \text{ unfavorable}\end{aligned}$$

$$\begin{aligned}\text{Efficiency variance} &= \$10.00 \times (7,600 - 7,500) \\ &= \$1,000 \text{ unfavorable}\end{aligned}$$

Diff: 2

Terms: price variance, efficiency variance

Objective: 5

AACSB: Analytical skills

41) Wilson's Winter Woolens manufactures jackets and other wool clothing. A certain designed ski parka requires the following:

Direct materials standard                      2 square yards at \$13.50 per yard  
Direct manufacturing labor standard   1.5 hours at \$20.00 per hour

During the third quarter, the company made 1,500 parkas and used 3,150 square yards of fabric costing \$39,375. Direct labor totaled 2,100 hours for \$45,150.

**Required:**

- a. Compute the direct materials price and efficiency variances for the quarter.
- b. Compute the direct manufacturing labor price and efficiency variances for the quarter.

Answer:

- a. Direct materials variances:

$$\begin{aligned}\text{Actual unit cost} &= \$39,375/3,150 \text{ square yards} \\ &= \$12.50 \text{ per square yard}\end{aligned}$$

$$\begin{aligned}\text{Price variance} &= 3,150 \times (\$13.50 - \$12.50) \\ &= \$3,150 \text{ favorable}\end{aligned}$$

$$\begin{aligned}\text{Efficiency variance} &= \$13.50 \times [3,150 - (1,500 \times 2)] \\ &= \$2,025 \text{ unfavorable}\end{aligned}$$

- b. Direct manufacturing labor variances:

$$\begin{aligned}\text{Actual labor rate} &= \$45,150/2,100 \\ &= \$21.50 \text{ per hour}\end{aligned}$$

$$\begin{aligned}\text{Price variance} &= 2,100 \times (\$21.50 - \$20.00) \\ &= \$3,150 \text{ unfavorable}\end{aligned}$$

$$\begin{aligned}\text{Efficiency variance} &= \$20.00 \times (2,100 - (1,500 \times 1.5)) \\ &= \$3,000 \text{ favorable}\end{aligned}$$

Diff: 2

Terms: price variance, efficiency variance

Objective: 5

AACSB: Analytical skills

42) The following data for the Alma Company pertain to the production of 1,000 urns during August.

Direct Materials (all materials purchased were used):

Standard cost: \$6.00 per pound of urn.

Total actual cost: \$5,600.

Standard cost allowed for units produced was \$6,000.

Materials efficiency variance was \$120 unfavorable.

Direct Manufacturing Labor:

Standard cost is 2 urns per hour at \$24.00 per hour.

Actual cost per hour was \$24.50.

Labor efficiency variance was \$336 favorable.

**Required:**

- What is standard direct material amount per urn?
- What is the direct material price variance?
- What is the total actual cost of direct manufacturing labor?
- What is the labor price variance for direct manufacturing labor?

Answer:

a. Standard cost per urn  $= \$6,000/1,000$   
 $= \$6.00$  per urn

Standard number of pounds per urn  $= \$6.00/\$6.00$   
 $= 1.0$  pound per urn

b. Materials price variance  $= \text{Total variance} - \text{efficiency variance}$   
 $= (\$5,600 - \$6,000) - \$120$  unfavorable  
 $= \$520$  favorable

c. Total standard labor cost of actual hours  $= ((1,000/2) \times \$24) - \$336$  favorable  
 $= \$11,664$   
Actual hours  $= \$11,664/24 = 486$  hours  
Total actual costs  $= 486 \times \$24.50 = \$11,907$

d. Labor price variance  $= \$11,907 - \$11,664$   
 $= \$243$  unfavorable

Diff: 3

Terms: price variance, efficiency variance

Objective: 5

AACSB: Analytical skills

43) The following data for the Lewgrow Garden Supplies Company pertains to the production of 2,500 garden spades during March. The spade consists of a wooden handle and a metal forged tool that comes in contact with the ground.

Direct Materials (all materials purchased were used):

Standard cost: \$1.00 per handle and \$3.50 per metal tool.

Total actual cost: \$11,350.

Materials flexible-budget efficiency variance was \$650 unfavorable.

Direct Manufacturing Labor:

Standard cost is 5 garden spades per hour at \$20.00 per hour.

Actual cost per hour was \$21.00.

Labor efficiency variance was \$400 favorable.

**Required:**

- What is the standard direct material amount per garden spade?
- What is the standard cost allowed for all units produced?
- What is the total direct materials flexible-budget variance?
- What is the direct material flexible-budget price variance?
- What is the total actual cost of direct manufacturing labor?
- What is the labor price variance for direct manufacturing labor?

Answer:

- Standard cost per garden spade = \$1.00 (handle) + \$3.50 (tool)  
= \$4.50 per garden spade
- Standard cost allowed for all units = 2,500 x \$4.50  
= \$11,250 per garden spade
- Total materials variance = \$11,250 - \$11,350  
= \$100 unfavorable
- Materials price variance = Total variance - efficiency variance  
= (\$11,350 - \$11,250) - \$650 unfavorable  
= \$550 favorable
- Total standard labor cost of actual hours = ((2,500/5) × \$20) - \$400 favorable  
= \$9,600  
Actual hours = \$9,600/20 = 480 hours  
Total actual costs = 480 × \$21 = \$10,080
- Labor price variance = \$9,600 - \$10,080  
= \$480 unfavorable

Diff: 3

Terms: price variance, efficiency variance

Objective: 5

AACSB: Analytical skills

44) The following data for the telephone company pertain to the production of 450 rolls of telephone wire during June. Selected items are omitted because the costing records were lost in a windstorm.

Direct Materials (All materials purchased were used.)

Standard cost per roll:  a  pounds at \$4.00 per pound.

Total actual cost:  b  pounds costing \$9,600.

Standard cost allowed for units produced was \$9,000.

Materials price variance:  c .

Materials efficiency variance was \$80 unfavorable.

Direct Manufacturing Labor

Standard cost is 3 hours per roll at \$8.00 per hour.

Actual cost per hour was \$8.25.

Total actual cost:  d .

Labor price variance:  e .

Labor efficiency variance was \$400 unfavorable.

**Required:**

Compute the missing elements in the report represented by the lettered items.

Answer:

a. Standard cost per roll  $= \$9,000/450 = \$20.00$

Standard number of pounds per roll  $= \$20/\$4 = 5$  pounds per roll

b. Actual pounds  $= (\$9,000 + \$80)/\$4 = 2,270$  pounds

c. Materials price variance  $= \$9,600 - (\$9,000 + \$80)$   
 $= \$520$  unfavorable

d. Total standard labor cost of actual hours  $= (450 \times 3 \times \$8) + \$400 = \$11,200$   
Actual hours  $= \$11,200/\$8 = 1,400$

Total actual cost  $= 1,400 \times \$8.25 = \$11,550$

e. Labor price variance  $= \$11,550 - \$11,200 = \$350$  unfavorable

Diff: 3

Terms: standard cost, price variance, efficiency variance

Objective: 5

AACSB: Analytical skills

45) Littrell Company produces chairs and has determined the following direct cost categories and budgeted amounts:

<u>Category</u>	<u>Standard Inputs for 1 output</u>	<u>Standard Cost per input</u>
Direct Materials	1.00	\$7.50
Direct Labor	0.30	9.00
Direct Marketing	0.50	3.00

Actual performance for the company is shown below:

Actual output: (in units)	<u>4,000</u>	
Direct Materials:		
Materials costs	\$30,225	
Input purchased and used	3,900	
Actual price per input	\$7.75	
Direct Manufacturing Labor:		
Labor costs		\$11,470
Labor-hours of input	1,240	
Actual price per hour	\$9.25	
Direct Marketing Labor:		
Labor costs		\$5,880
Labor-hours of input	2,100	
Actual price per hour	\$2.80	

**Required:**

- What is the combined total of the flexible-budget variances?
- What is the price variance of the direct materials?
- What is the price variance of the direct manufacturing labor and the direct marketing labor, respectively?
- What is the efficiency variance for direct materials?
- What are the efficiency variances for direct manufacturing labor and direct marketing labor, respectively?

Answer:

a.	<u>Actual Results</u>	<u>Flexible Budget</u>	<u>Variances</u>
Direct materials	\$30,225	\$30,000	\$225 U
Direct manufacturing labor	11,470	10,800	670 U
Direct marketing labor	<u>5,880</u>	<u>6,000</u>	120 F
	<u>\$47,575</u>	<u>\$46,800</u>	<u>\$775 U</u>

- $(\$7.75 - \$7.50) \times (3,900) = \$975$  unfavorable
- Manufacturing Labor  $(\$9.25 - \$9.00) \times 1,240 = \$310$  unfavorable  
Marketing Labor  $(\$2.80 - \$3.00) \times 2,100 = \$420$  favorable
- $[3,900 - (4,000 \text{ units} \times 1.00)] \times \$7.50 = \$750$  favorable
- Manufacturing Labor =  $[1,240 \text{ hours} - (4,000 \times 0.30 \text{ hours})] \times \$9.00 = \$360$  unfavorable  
Marketing Labor =  $[2,100 \text{ hours} - (4,000 \times 0.50 \text{ hours})] \times \$3.00 = \$300.00$  unfavorable

Diff: 3

Terms: standard cost, flexible-budget variance, price variance, efficiency variance

Objective: 5

AACSB: Analytical skills

46) Give at least three good reasons why a favorable price variance for direct materials might be reported.

Answer: Any three of the following:

- a. The purchasing manager skillfully negotiated a better purchase price.
- b. The purchasing manager changed to a lower-priced supplier.
- c. The purchasing manager purchased in larger quantities resulting in quantity discounts.
- d. The purchasing manager changed to lower-quality materials.
- e. An unexpected industry oversupply resulted in decreased prices for materials.
- f. Budgeted purchase prices were not carefully set.

Diff: 3

Terms: price variance

Objective: 5

AACSB: Analytical skills

47) Give at least three good reasons why an unfavorable efficiency variance for direct manufacturing labor might be reported.

Answer: Any three of the following:

- a. More lower-skilled workers were scheduled than planned.
- b. Work was inefficiently scheduled.
- c. Machines were not properly maintained.
- d. Budgeted time standards were too tight.

Diff: 3

Terms: efficiency variance

Objective: 5

AACSB: Analytical skills

Objective 7.6

1) A purchasing manager's performance is best evaluated using the:

- A) direct materials price variance
- B) direct materials flexible-budget variance
- C) direct manufacturing labor flexible-budget variance
- D) affect the manager's action has on total costs for the entire company

Answer: D

Diff: 3

Terms: variance

Objective: 6

AACSB: Reflective thinking

- 2) One of the primary reasons for using cost variances is:
- A) they diagnose the cause of a problem and what should be done to correct it
  - B) for superiors to communicate expectations to lower-level employees
  - C) to administer appropriate disciplinary action
  - D) for financial control of operating activities and understanding why variances arise

Answer: D

Diff: 2

Terms: variance

Objective: 6

AACSB: Reflective thinking

- 3) A favorable cost variance of significant magnitude:
- A) is the result of good planning
  - B) if investigated, may lead to improved production methods
  - C) indicates management does not need to be concerned about lax standards
  - D) does not need to be investigated

Answer: B

Diff: 3

Terms: favorable variance

Objective: 6

AACSB: Reflective thinking

- 4) The variances that should be investigated by management include:
- A) only unfavorable variances
  - B) only favorable variances
  - C) all variances, both favorable and unfavorable
  - D) both favorable and unfavorable variances considered significant in amount for the company

Answer: D

Diff: 1

Terms: variance

Objective: 6

AACSB: Reflective thinking

- 5) Typically, managers have the LEAST control over:
- A) the direct material price variance
  - B) the direct material efficiency variance
  - C) machine maintenance
  - D) the scheduling of production

Answer: A

Diff: 2

Terms: price variance

Objective: 6

AACSB: Reflective thinking



6) If manufacturing machines are breaking down more than expected, this will contribute to a(n):

- A) favorable direct manufacturing labor price variance
- B) unfavorable direct manufacturing labor price variance
- C) favorable direct manufacturing labor efficiency variance
- D) unfavorable direct manufacturing labor efficiency variance

Answer: D

Diff: 2

Terms: efficiency variance

Objective: 6

AACSB: Reflective thinking

7) A single variance:

- A) signals the cause of a problem
- B) should be evaluated in isolation from other variances
- C) may be the result of many different problems
- D) should be used for performance evaluation

Answer: C

Diff: 2

Terms: variance

Objective: 6

AACSB: Reflective thinking

8) Variance analysis should be used:

- A) to understand why variances arise
- B) as the sole source of information for performance evaluation
- C) to punish employees that do not meet standards
- D) to encourage employees to focus on meeting standards

Answer: A

Diff: 3

Terms: variance

Objective: 6

AACSB: Ethical reasoning

9) Variances should be investigated:

- A) when they are kept below a certain amount
- B) when there is a small variance for critical items such as product defects
- C) even though the cost of investigation exceeds the benefit
- D) when there is an in-control occurrence

Answer: B

Diff: 3

Terms: variance

Objective: 6

AACSB: Ethical reasoning

10) When continuous improvement budgeted costing is implemented, cost reductions can result from:

- A) price reductions
- B) reducing materials waste
- C) producing products faster and more efficiently
- D) All of these answers are correct.

Answer: D

Diff: 2

Terms: variance

Objective: 6

AACSB: Reflective thinking

11) Nonfinancial performance measures:

- A) are usually used in combination with financial measures for control purposes
- B) are used to evaluate overall cost efficiency
- C) allow managers to make informed tradeoffs
- D) are often the sole basis of a manager's performance evaluations

Answer: A

Diff: 3

Terms: variance

Objective: 6

AACSB: Reflective thinking

12) Unfavorable direct material price variances are:

- A) always credits
- B) always debits
- C) credited to the Materials Control account
- D) credited to the Accounts Payable Control account

Answer: B

Diff: 1

Terms: price variance

Objective: 6

AACSB: Reflective thinking

13) Favorable direct manufacturing labor efficiency variances are:

- A) always credits
- B) always debits
- C) debited to the Work-in-Process Control account
- D) debited to the Wages Payable Control account

Answer: A

Diff: 1

Terms: efficiency variance

Objective: 6

AACSB: Reflective thinking

14) From the perspective of control, the direct materials efficiency variance should be isolated at the time of:

- A) purchase
- B) use
- C) completion of the entire product
- D) sale of the product

Answer: B

Diff: 2

Terms: efficiency variance

Objective: 6

AACSB: Reflective thinking

15) Standard costing systems are a useful tool when using:

- A) just-in-time systems
- B) total quality management
- C) computer-integrated manufacturing systems
- D) All of these answers are correct.

Answer: D

Diff: 2

Terms: standard cost

Objective: 6

AACSB: Reflective thinking

16) Repeatedly identifying causes of variances, initiating corrective actions, and evaluating results of actions is an example of

- A) efficiency.
- B) effectiveness.
- C) continuous improvement.
- D) All of these answers are correct.

Answer: C

Diff: 2

Terms: variance

Objective: 6

AACSB: Reflective thinking

17) The relative amount of inputs used to achieve a given output level is known as

- A) efficiency.
- B) effectiveness.
- C) continuous improvement.
- D) All of these answers are correct.

Answer: A

Diff: 2

Terms: variance

Objective: 6

AACSB: Reflective thinking

18) A favorable variance can be automatically interpreted as "good news."

Answer: FALSE

Explanation: A favorable variance may not be good news at all because it adversely affects other variances that increase total costs.

Diff: 1

Terms: favorable variance

Objective: 6

AACSB: Reflective thinking

19) Variances often affect each other.

Answer: TRUE

Diff: 1

Terms: variance

Objective: 6

AACSB: Analytical skills

20) If variance analysis is used for performance evaluation, managers are encouraged to meet targets using creativity and resourcefulness.

Answer: FALSE

Explanation: The most common outcome when variance analysis is used for performance evaluation is that managers seek targets that are easily attainable and avoid targets that require creativity and resourcefulness.

Diff: 2

Terms: variance

Objective: 6

AACSB: Ethical reasoning

21) When using variance for performance evaluation, managers often focus on effectiveness and efficiency as two of the common attributes used in comparing expected results with actual results.

Answer: TRUE

Diff: 2

Terms: variance

Objective: 6

AACSB: Ethical reasoning

22) For critical items such as product defects, a small variance may prompt investigation.

Answer: TRUE

Diff: 2

Terms: variance

Objective: 6

AACSB: Analytical skills

23) A particular variance generally signals one particular problem.

Answer: FALSE

Explanation: There are many potential causes of a single variance.

Diff: 1

Terms: variance

Objective: 6

AACSB: Analytical skills

24) If budgets contain slack, cost variances will tend to be favorable.

Answer: TRUE

Diff: 2

Terms: favorable variance

Objective: 6

AACSB: Analytical skills

25) Continuous improvement budgeted costs target price reductions and efficiency improvements.

Answer: TRUE

Diff: 1

Terms: standard cost

Objective: 6

AACSB: Analytical skills

26) Improvement opportunities are easier to identify when products have been on the market for a considerable period of time.

Answer: FALSE

Explanation: Improvement opportunities are easier to identify when products are first produced.

Diff: 2

Terms: variance

Objective: 6

AACSB: Reflective thinking

27) It is best to rely totally on financial performance measures rather than using a combination of financial and nonfinancial performance measures.

Answer: FALSE

Explanation: It is best to rely on a combination of financial and nonfinancial performance measures.

Diff: 2

Terms: variance

Objective: 6

AACSB: Reflective thinking

28) From the perspective of control, the direct materials price variance should be isolated at the time of purchase.

Answer: TRUE

Diff: 2

Terms: price variance

Objective: 6

AACSB: Reflective thinking

29) The goal of variance analysis is for managers to understand why variances arise, to learn, and to improve future performance.

Answer: TRUE

Diff: 2

Terms: variance

Objective: 6

AACSB: Communication

30) Employees logging in to production floor terminals and other modern technologies greatly facilitate the use of a standard costing system.

Answer: TRUE

Diff: 1

Terms: standard cost

Objective: 6

AACSB: Reflective thinking

31) Possible operational causes of an unfavorable direct materials efficiency variance include poor design of products or processes.

Answer: TRUE

Diff: 1

Terms: variance

Objective: 6

AACSB: Reflective thinking

32) Effectiveness is the relative amount of inputs used to achieve a given output level.

Answer: FALSE

Explanation: Efficiency is the relative amount of inputs used to achieve a given output level.

Diff: 1

Terms: price variance

Objective: 6

AACSB: Reflective thinking

33) Coffey Company maintains a very large direct materials inventory because of critical demands placed upon it for rush orders from large hospitals. Item A contains hard-to-get material Y. Currently, the standard cost of material Y is \$4.00 per gram. During February, 22,000 grams were purchased for \$4.10 per gram, while only 20,000 grams were used in production. There was no beginning inventory of material Y.

**Required:**

- a. Determine the direct materials price variance, assuming that all materials costs are the responsibility of the materials purchasing manager.
- b. Determine the direct materials price variance, assuming that all materials costs are the responsibility of the production manager.
- c. Discuss the issues involved in determining the price variance at the point of purchase versus the point of consumption.

Answer:

a. Material price variance =  $22,000 \times (\$4.10 - \$4.00)$   
= \$2,200 unfavorable

b. Material price variance =  $20,000 \times (\$4.10 - \$4.00)$   
= \$2,000 unfavorable

c. Measuring the price variance at the time of materials purchased is desirable in situations where the amount of materials purchased varies substantially from the amount used during the period. Failure to measure the price variance based on materials purchased could result in a substantial delay in determining that a price change occurred.

Also, if the purchasing manager is to be held accountable for his/her purchasing activities, it is appropriate to have the materials price variances computed at the time of purchase so the manager can include the variances on his/her monthly report. This encourages the purchasing manager to be more responsible for the activities under his/her control. It provides a closer relationship between responsibility and authority and becomes a relevant performance measure.

Diff: 2

Terms: price variance, efficiency variance

Objective: 5, 6

AACSB: Analytical skills

34) During February the Lungren Manufacturing Company's costing system reported several variances that the production manager was surprised to see. Most of the company's monthly variances are under \$125, even though they may be either favorable or unfavorable. The following information is for the manufacture of garden gates, its only product:

1. Direct materials price variance, \$800 unfavorable.
2. Direct materials efficiency variance, \$1,800 favorable.
3. Direct manufacturing labor price variance, \$4,000 favorable.
4. Direct manufacturing labor efficiency variance, \$600 unfavorable.

**Required:**

- a. Provide the manager with some ideas as to what may have caused the price variances.
- b. What may have caused the efficiency variances?

Answer:

- a. Direct materials' unfavorable price variance may have been caused by: (1) paying a higher price than the standard for the period, (2) changing to a new vendor, or (3) buying higher-quality materials.

Direct manufacturing labor's favorable price variance may have been caused by: (1) changing the work force by hiring lower-paid employees, (2) changing the mix of skilled and unskilled workers, or (3) not giving pay raises as high as anticipated when the standards were set for the year.

- b. Direct materials' favorable efficiency variance may have been caused by: (1) employees/machinery working more efficiency and having less scrap and waste materials, (2) buying better-quality materials, or (3) changing the production process.

Direct manufacturing labor's unfavorable efficiency variance may have been caused by: (1) poor working conditions, (2) changes in the production process (learning something new initially takes longer), (3) different types of direct materials to work with, or (4) poor attitudes on behalf of the workers.

Diff: 3

Terms: price variance, efficiency variance

Objective: 6

AACSB: Analytical skills



35) Mayberry Company had the following journal entries recorded for the end of June. Unfortunately, the company's only accountant quit on July 10 and the president is at a loss as to the company's performance for the month of June.

Materials Control	300,000	
Direct Materials Price Variance		10,000
Accounts Payable Control		290,000
Work-in-Process Control	120,000	
Direct Materials Efficiency Variance	8,000	
Materials Control		128,000
Work-in-Process Control	850,000	
Direct Manufacturing Labor Price Variance	15,000	
Direct Manufacturing Labor Efficiency Variance		18,000
Wages Payable Control		847,000

**Required:**

- What kind of performance did the company have for June? Explain each variance.
- Why is Direct Materials given in two entries?

Answer:

a. The first entry is for materials purchases. The credit entry indicates a favorable variance. This could be an indicator that the purchasing agent did a good job or he/she bought inferior goods.

Production was not as lucky in June. The debit entry for materials efficiency indicates that more materials were used than should have been under the operating plans for the month.

For labor, the price was unfavorable, while the efficiency was favorable. This could have been caused by using higher-priced workers who were, in fact, better workers. Of course, there are many other possible causes.

b. Recoding variances for direct materials is completed with two separate entries since the price variance is isolated at the point of purchase, while the efficiency variance is isolated at the point of use.

Diff: 2

Terms: price variance, efficiency variance, standard cost

Objective: 6

AACSB: Analytical skills

36) Waddell Productions makes separate journal entries for all cost accounting-related activities. It uses a standard cost system for all manufacturing items. For the month of June, the following activities have taken place:

Direct Manufacturing Materials Purchased	\$300,000	
Direct Manufacturing Materials Used	250,000	
Direct Materials Price Variance (at time of purchase)	10,000	unfavorable
Direct Materials Efficiency Variance	15,000	favorable
Direct Manufacturing Labor Price Variance	6,000	favorable
Direct Manufacturing Labor Efficiency Variance	4,000	favorable
Direct Manufacturing Labor Payable	170,000	

**Required:**

Record the necessary journal entries to close the accounts for the month.

Answer: Materials Control	300,000	
Direct Manufacturing Materials Price Variance	10,000	
Accounts Payable Control		310,000
Work-in-Process Control	265,000	
Direct Materials Efficiency Variance		15,000
Materials Control		250,000
Work-in-Process Control	180,000	
Direct Manufacturing Labor Price Variance		6,000
Direct Manufacturing Labor Efficiency Variance		4,000
Wages Payable Control		170,000

Diff: 3

Terms: price variance, efficiency variance, standard cost

Objective: 6

AACSB: Analytical skills

37) Describe the purpose of variance analysis.

Answer: Variance analysis should help the company learn about what happened and how to perform better and should not be a tool in playing the "blame game."

Diff: 2

Terms: variance

Objective: 6

AACSB: Reflective thinking

## Objective 7.7

1) The process by which a company's products or services are measured relative to the best possible levels of performance is known as:

- A) efficiency
- B) benchmarking
- C) a standard costing system
- D) variance analysis

Answer: B

Diff: 1

Terms: benchmarking

Objective: 7

AACSB: Reflective thinking

2) When benchmarking:

- A) the best levels of performance are usually found in companies that are within different industries
- B) finding appropriate benchmarks is a minor issue
- C) comparisons can highlight areas for better future cost management
- D) Both A and C are correct.

Answer: C

Diff: 2

Terms: benchmarking

Objective: 7

AACSB: Reflective thinking

3) Ensuring benchmark numbers are comparable can be difficult because differences can exist across companies with:

- A) overall company strategy
- B) depreciation methods
- C) inventory methods
- D) All of these answers are correct.

Answer: D

Diff: 2

Terms: benchmarking

Objective: 7

AACSB: Reflective thinking

4) When benchmarking, management accountants are MOST valuable when they:

- A) present differences in the benchmarking data to management
- B) highlight differences in the benchmarking data to management
- C) provide insight into why costs or revenues differ across companies
- D) provide complex mathematical analysis

Answer: C

Diff: 2

Terms: benchmarking

Objective: 7

AACSB: Communication

5) Benchmarking is the continuous process of measuring products, services, and activities against the best possible levels of performance, either inside or outside the organization.

Answer: TRUE

Diff: 1

Terms: benchmarking

Objective: 7

AACSB: Reflective thinking

6) When benchmarking, the best levels of performance are typically found in companies that are totally different.

Answer: FALSE

Explanation: When benchmarking, the best levels of performance are typically found in competing companies or in companies having similar processes.

Diff: 1

Terms: benchmarking

Objective: 7

AACSB: Reflective thinking

7) One problem with benchmarking is ensuring that numbers are comparable.

Answer: TRUE

Diff: 1

Terms: benchmarking

Objective: 7

AACSB: Reflective thinking

8) When benchmarking it is best when management accountants simply analyze the costs and allow management to provide the insight as to why the revenues and costs differ between companies.

Answer: FALSE

Explanation: When benchmarking, management accountants are more valuable when they analyze the costs and also provide management with insight as to why the revenues and costs differ between companies.

Diff: 1

Terms: benchmarking

Objective: 7

AACSB: Communication

9) What is benchmarking, and how is it useful to a company?

Answer: Benchmarking is the continuous process of comparing the levels of performance in producing products and services and executing activities against the best levels of performance in competing companies or in companies having similar processes. Companies can examine aspects of their own operations in comparison to similar operations and see if they are operating at a disadvantage.

Benchmarking might provide targets and opportunities to cut costs, and might even show where they have a competitive advantage over similar companies.

Diff: 2

Terms: benchmarking

Objective: 7

AACSB: Reflective thinking