Direct materials Variances (Exercises)

Multiple Choice:-

1. *Why does a company use a standard costing system?*
a. *to identify variances from actual cost that assist them in maintaining profits*
b. *to identify nonperformers in the workplace*
c. *to identify what vendors are unreliable*
d. *to identify defective materials*

Answer: a

2. *This standard is set at a level that may be reached with reasonable and attainable effort.*
a. *ideal standard*
b. *normal standard*
c. *static standard*
d. *variance from standard*

Answer: b

3. *The variance is the difference involving spending more or using more than the standard amount are.*
a. *favorable variance*
b. *unfavorable variance*
c. *no variance*
d. *variance*

Answer: b

4. *This variance is the difference involving spending less, or using less than the standard amount.*
a. *favorable variance*
b. *unfavorable variance*
c. *no variance*
d. *variance*

Answer : a

5. *What are some possible reasons for a material price variance?*
a. *Contract to purchased material*
b. *labor rate increases*
c. *labor rate decreases*
d. *labor efficiency*

6. *When is the material price variance unfavorable?*
a. *when the actual quantity used is greater than the standard quantity*
b. *when the actual quantity used is less than the standard quantity*
c. *when the actual price paid is greater than the standard price*
d. *when the actual price is less than the standard price*

Answer :c

7.When is the material price variance favorable?

a. when the actual quantity used is greater than the standard quantity

b. when the actual quantity used is less than the standard quantity

c. when the actual price paid is greater than the standard price

d. when the actual price is less than the standard price

Answer :d

8.What are some reasons for a material quantity variance?

a. building rental charges increase

b. labor rate decreases

c. more qualified workers

d. labor efficiency increases

Answer :c

9. When is the material quantity variance favorable?

a. when the actual quantity used is greater than the standard quantity

b. when the actual quantity used is less than the standard quantity

c. when the actual price paid is greater than the standard price

d. when the actual price is less than the standard price

Answer: b

10).When is the material quantity unfavorable?

a. when the actual quantity used is greater than the standard quantity

b. when the actual quantity used is less than the standard quantity

c. when the actual price paid is greater than the

d. standard price

e. when the actual price is less than the standard price

Answer :a

11) *Information on Rex Co.'s direct material cost for May is as follows"*

Actual quantity of direct materials purchased and used	*30,000 lbs.*
Actual total cost of direct materials	*$84,000*
Unfavorable direct materials Quantity variance	*$ 3,000*
Standard quantity of direct materials allowed for May production	*29,000 lbs.*

For the month of May, what was Rex's direct materials price variance?

a. $2,800 favorable

b. $2,800 unfavorable

c. $6,000 unfavorable

d. $6,000 favorable

12.During March, Younger company's direct material cost for the manufacture of product T were as follows:

Actual unit purchase price	*$6.50*
Standard quantity allowed for actual production	*2,100 kg*
Quantity purchased and used for actual production	*2,300 kg*
Standard price	*$6.25*

Younger materials quantity or usage variance for March

a.$1,250 unfavorable

b.$1,250 favorable

c.$1,300 unfavorable

d.$1,300 favorable

13.Information of Material Company's direct material cost is as follows:-

Actual units of direct materials used	20,000
Actual direct material costs	$40,000
Standard price per unit of direct materials	$2.10
Direct materials quantity variance-favorable	$3,000

What was Material's direct material price variance?

a.$1,000 favorable
b.$1,000 unfavorable
c.$2,000 favorable
d.$2,000 unfavorable

14.A company uses a standard cost system to account for its only product.
The materials standard per unit was 4 lbs. at $5.10 .
Operating data for April were as follows:-

Material used	7,800 lbs
Cost of materials used	$40,950
Number of finished unit produced	2,000

The material quantity or usage variance for April was

a.$1,020 favorable
b.$1,050 favorable
c.$1,170 unfavorable
d.$1,200 unfavorable

16. Durable Company installs shingle roofs on houses. The standard material cost for a Type R house is $1,250 based on 1,000 units at a cost $1.25 each. During April, Durable installed roofs on 20 type R houses, using 22,000 units of material at a cost of $1.20 per unit, and a total cost $ 26,400. Durable's material price variance for April is

e. 1,000 favorable
f. 1,100 favorable
g. 1,400 unfavorable
h. 2,500 unfavorable

17.Information on Kennedy Company's direct material cost is as follows:

Standard unit price	$3.60
Actual quantity purchased	1,600
Standard quantity allowed for actual production	1,450
Materials purchased price variance-favorable	$240

What was the actual purchase price per unit rounded to the nearest centavo?

a. $3.06
b. $3.11
c. $3.45
d. $ 3.75

18 .Buckler Company manufactures desks with vinyl tops. The standard material cost for the vinyl used per Model S desk is $27.00 based on 12 square feet of vinyl at a cost of $2.5 per square foot. A production run of 1,000 desk in march resulted in usage of 12,600 square feet of vinyl at a cost of $2.00 per square foot. A total cost of $25,200. The Quantity variance resulting from the above production run was:-

a. $1,200 unfavorable
b. $1,350 unfavorable
c. $1,800 favorable
d. $3,150 favorable

19.Throop Company had budgeted 50,000 units of output using 50,000 units raw materials at a total material cost of $100,000. Actual output was 50,000 units of product, requiring 45,000 units of raw materials at a cost $2.10 per unit. The direct material price variance ad Quantity variance were

	MPV	*MQV*
i.	*$4,500 unfavorable*	*$10,000 favorable*
j.	*$5,000 favorable*	*$10,500 unfavorable*
k.	*$5,000 unfavorable*	*$10,500 favorable*
l.	*$10,000 favorable*	*$4,500 unfavorable*

*20) **J** Company has a material standard of 1 pound per unit of output. Each pound has a standard price of $25 per pound. During July, J Company paid $127,250 for 4,950 pounds, which they used to produce 4,700 units. What is the direct material price variance?*

a) $3,500 unfavorable

b) $2,600 favorable

c) $12,600 unfavorable

d) $10,000 unfavorable

Exercises:-

Exercises #1

Use the information provided to create a standard cost card for production of one glove box switch. To make one switch it takes 16 feet of plastic-coated copper wire and 0.5 pounds of plastic material. The plastic material can usually be purchased for $20.00 per pound, and the wire costs $2.50 per foot. The labor necessary to assemble a switch consists of two types. The first type of labor is assembly, which takes 3.5 hours. These workers are paid $27.00 per hour. The second type of labor is finishing, which takes 2 hours. These workers are paid $29.00 per hour. Overhead is applied using labor hours. The variable overhead rate is $14.90 per labor hour. The fixed overhead rate is $15.60 per hour.

Exercises #2

C Company manufactures a number of consumer items for general household use. During the recent month, the company manufactured 5,000 units using 12,000 pounds of material. The 14,000 pounds purchased cost the company $21,000. According to the standard cost card, each unit requires 2.2 pounds, at a cost of $1.40 per pound.

Required: *Compute the materials cost variance **MCV and** material price variance **MPV** and material quantity variance **MQV**.*

Exercises #3

Carol's Cookies expected to use 1.5 pounds of direct materials to produce 1 unit (batch) of product at a price of $2 per pound. Actual results are in for last year, which indicates 390,000 batches of cookies were produced and sold. The company purchased 640,000 pounds of materials at $1.80 per pound and used 624,000 pounds in production.

Required: *Calculate the materials cost variance **MCV,** and materials price variance **MPV** , and materials quantity **MQV** variances*

Exercises #4

Connie's Candy Company produces various types of candies that they sell to retailers. Connie's Candy establishes a standard price for candy-making materials of $7.00 per pound. Each box of candy is expected to use 0.25 pounds of candy-making materials.

Connie's Candy found that the actual price of materials was $6.00 per pound. They used 2,400 pounds of materials in production and they actually use make 10,000 box of candies

Required: *Calculate the **MCV , MPV , MQV***

Exercises #5

Beta Company Actually used 55,500 sheets of material @ $ 5.50 per sheet to produce 11,000 units of a product for which the standard quantity allowed is 55,000 sheets (5 sheets per unit allowed x 11,000 units actually produced). Since the standard price of the material is $ 6 per sheet,

Required: *Calculate the **MCV , MPV , MQV***

Exercises #6

April Industries employs a standard costing system in the manufacturing of its sole product, a park bench. They purchased 60,000 feet of raw material for $300,000, and it takes 5 feet of raw materials to produce one park bench. In August, the company produced 10,000 park *benches. The standard cost for material output was $100,000, and there was an unfavorable direct materials quantity variance of $6,000.*

1. *What is April Industries' standard price for one unit of material?*
2. *What was the total number of units of material used to produce the August output?*
3. *What was the direct materials price variance for August?*

Exercises #7

Materials variances. *Peterson Foods manufactures scones كعك. For January 2023 , it budgeted to purchase and use 15,000 pounds of materials at $0.89 a pound. Actual purchases and usage for January 2012 were 16,000 pounds at $0.82 a pound. Peterson. Actual output was 60,000 units.*

Required :-

1. *Compute the materials cost variance* ***MCV****.*
2. *Compute the price* ***MPV*** *and Quantity****MQV*** *variances.*

Exercises #8

Materials variances :*The Monroe Corporation manufactures lamps. It has set up the following standards per finished unit for direct materials :*

Direct materials: 10 lb. at $4.50 per lb.

The number of finished units actually produced for January 2023 was 10,000
Actual results in January 2023 were as follows:

Direct materials purchased and used: 98,000 lb. used , at a total cost of $460,600.

Required :-

Compute the January 2023,material cost variance ***MCV,*** *material price variances* ***MPV*** *, and materials Quantity variance* ***MQV***