

MULTIPLE CHOICE: Circle the letter of the best answer provided (2 pts. each)

1. Defective units that are fixed and then sold as good units are classified as:
 - a. scrap.
 - b. rework.
 - c. normal spoilage.
 - d. abnormal spoilage.
2. In what account is the cash received from the sale of scrap recorded if it is considered an immaterial amount? (A debit to cash and a credit to....)
 - a. Work-in-Process
 - b. Overhead
 - c. Scrap Revenue
 - d. It depends on whether the scrap was from a specific job or applied to all jobs.
3. Accounting for Transferred In costs only occurs when:
 - a. materials are added at the beginning of the process.
 - b. accounting for costs in a department that is not the first process.
 - c. the FIFO cost flow assumption is used.
 - d. the weighted-average cost flow assumption is used.

PROBLEM 4

Part 1: (4 pts.)

During the past few months, Kellum Mfg. Co. has had to use old, inferior equipment due to fire damage at its manufacturing plant. Using that equipment has increased the spoilage rate it typically experiences. During a recent period, Kellum produced a total of 50,000 products. Inspection occurs at the end of the process, and of the 50,000 units, 10,000 were spoiled units. Show a calculation of Kellum's normal spoilage rate.

Part 2: (9 pts.)

Using your answer from Part 1 above, calculate the number of units of normal spoilage and abnormal spoilage for Kellum's most recent month of production. Kellum uses the weighted-average method.

	UNITS
Beginning WIP	4,000
Units started this period	20,000
Good units transferred out	18,000
Ending WIP	1,000

PROBLEM 5

Using the following data, prepare a cost of production report (the 5 steps) for the month of May using the FIFO cost flow assumption. There is no spoilage this month.

	PHYSICAL UNITS	DM COSTS	CC COSTS
WIP, May 1	40		
DM 100% complete		\$ 408	
CC 60% complete			\$ 180
Units started in May	320		
Cost added during May		\$ 1,392	\$ 2,160
Units completed in May	280		
WIP, May 31	80		
DM 100% complete			
CC 40% complete			

PROBLEM 6

The data below is for the second department of Bradshaw, Inc.'s three-part production process. Using the data, prepare a cost of production report (the 5 steps) for the month of July using the weighted-average cost flow assumption. There is no spoilage.

	PHYSICAL UNITS	TRANSFERRED IN	DM COSTS	CC COSTS
WIP, July 1	240	\$ 864		
DM 100% complete			\$ 408	
CC 40% complete				\$ 180
Units started in July	5,200			
Cost added during July		\$ 18,720	\$ 12,512	\$ 31,034
Units completed in July	4,840			
WIP, July 31	600			
DM 100% complete, CC 70% complete				

PROBLEM 7

King Mfg. Co. uses a process costing system and the FIFO cost flow assumption. Using the data below, prepare a cost of production report (the 5 steps) for the month of October. There is no spoilage.

	PHYSICAL UNITS	TRANSFERRED IN	DM COSTS	CC COSTS
WIP, October 1	800	\$ 4,400		
DM 100% complete			\$ 1,200	
CC 40% complete				\$ 1,400
Units started in October	8,000			
Cost added during October		\$ 18,000	\$ 12,000	\$ 29,440
Units completed in October	7,600			
WIP, October 31	1,200			
DM 100% complete, CC 30% complete				

PROBLEM 8

Dial Corporation is a manufacturer that uses a process costing system. It inspects its products when 50% complete and experiences a 4% normal spoilage rate. Using the following data, present calculations determining the amount of normal and abnormal spoilage for the month as well as the equivalent units of production.

	PHYSICAL UNITS
WIP, July 1	2,000
DM 100% complete	
CC 20% complete	
Units started in July	8,500
Good units completed in July	7,800
WIP, July 31	2,200
DM 100% complete	
CC 30% complete	

PROBLEM 6 (26 pts.)

Charlassier Corporation manufactures and sells laptop computers and uses standard costing. For the month of September there was no beginning inventory, there were 3,000 units produced and 2,500 units sold. The manufacturing variable cost per unit is \$385. The variable operating cost per unit was \$312.50. The fixed manufacturing cost is \$450,000 and the fixed operating cost is \$75,000. Rates for manufacturing costs are based on the number of units produced. Rates for the operating costs are based on the number of units sold. The selling price per unit is \$925.

Required:

- Prepare the income statement for Charlassier Corporation for September under variable costing. (18 pts.)
- Show calculations to reconcile the net income you calculated using variable costing to what the net income would be if absorption costing had been used. (You do not have to complete an income statement under absorption costing.) (8 pts.)

b)

PROBLEM 7 (12 pts.)

World Tables has 1,000 units in inventory. The following information has been provided.

Direct material costs	\$87.50 per unit
Fixed manufacturing costs	\$62.50 per unit
Variable manufacturing costs	\$50.00 per unit
Variable administrative costs	\$25.00 per unit

Required:

- What is the cost of the ending inventory if absorption costing is used?
- What is the cost of the ending inventory if variable costing is used?
- What is the cost of the ending inventory if throughput costing is used?

PROBLEM 8 (20 pts.)

For 2016, Nichols Manufacturing had no inventory at the beginning of the year. During the year it produced 200,000 units and sold 150,000 units. Other information for the year included:

Direct materials	\$150,000
Direct manufacturing labor	188,000
Variable manufacturing overhead	100,000
Variable selling expenses	100,000
Fixed administrative expenses	100,000
Fixed manufacturing overhead	200,000

Required:

- Compute the cost per unit manufactured under both absorption and variable costing.
- Calculate the cost of the ending inventory under both absorption and variable costing.

PROBLEM 9 (24 pts.)

The Corata Appliance Manufacturing Corporation manufactures two vacuum cleaners, the Standard and the Super. The following information was gathered about the two products:

	<u>Standard</u>	<u>Super</u>
Budgeted sales in units	2,400	600
Budgeted selling price	\$600	\$1,700
Budgeted contribution margin per unit	\$400	\$1,050
Actual sales in units	2,800	1,200
Actual selling price	\$650	\$1,680

a) Calculate the budgeted sales-mix percentage for the Standard and the Super vacuum cleaners,

b) Calculate the sales-volume variance for each product.

c) Calculate the sales-quantity variance for each product.

d) Calculate the sales-mix variance for each product.

PROBLEM 10 (24 pts.)

Fulmer & Associates has analyzed three of its clients as follows:

	<u>Rupert</u>	<u>Rearick</u>	<u>Stitt</u>
Revenues	\$140,000	\$160,000	\$100,000
Variable costs	60,000	100,000	45,000
Allocated Fixed costs	<u>49,200</u>	<u>28,000</u>	<u>34,000</u>
Operating Income	\$ 30,800	\$ 32,000	\$21,000

A) Calculate the operating income as a percentage of revenue for each client.

B) The firm has decided to change how it allocates fixed costs to clients. Data about these costs are presented below. Calculate the rate per event for each component of the total fixed costs.

	<u>Cost</u>	<u>Total Events</u>	<u>Rate per event</u>
In-person meetings:	\$78,000	156 meetings	
Forms processing:	\$18,000	1,200 hours	
Change requests	\$15,200	100 requests	

C) The second customer shown, Rearick, required 64 meetings, 480 hours to process forms, and 40 change requests. Using your rates in (B) above, calculate the amount of fixed costs that should be allocated to Rearick.

D) What would Rearick's adjusted Operating Income be using your answer in (C) ?

PROBLEM 6 Tanner Manufacturing produces shoe boxes from a quality grade of cardboard. In the process of making the boxes, some excess cardboard is cut away. The small cutoff pieces are sold to a local recycling center and are accounted for as a by-product. Data for the recent period are:

	Quantity <u>Manuf.</u>	Quantity <u>Sold</u>	Ending <u>Inventory</u>	Selling <u>Price</u>
Boxes	5,000 lbs.	4,500 lbs.	500 lbs.	\$15 per lb.
Scrap pieces	400 lbs.	300 lbs.	100 lbs.	\$4 per lb.

Required:

- 1) Using the Production Method, calculate...
 - a) Total revenue
 - b) Ending Inventory value of the boxes
 - c) Cost of Goods Sold
- 2) Calculate (a), (b), and (c) as above using the Sales Method

PROBLEM 7 (10 pts.) List 5 characteristics of the just-in-time philosophy.

PROBLEM 8

Little Company has three employees that serve as the lone support department for its two operating departments, Sales and Purchasing. Costs of the support department are:

Variable costs: \$30 per hour of service

Fixed costs: \$132,000

Other data:

	<u>Budgeted</u>	<u>Actual</u>
Sales Dept.	3,600 hrs.	3,500 hrs.
Purchasing Dept.	2,400 hrs.	2,800 hrs.

Show calculations allocating the support department costs to the two operating departments using...

- 1) The single rate method
- 2) The dual rate method

PROBLEM 9

Malone Mfg. Co. produces two products in a joint process. Data for a recent production batch are:

Products	<u>X</u>	<u>Y</u>
Quantity produced	1,000 gallons	1,500 gallons
Sales value at split off	\$45,000	\$15,000
Separable costs of		
additional processing	\$20,000	\$25,000
Sales value after		
additional processing	\$70,000	\$55,000

Show calculations to allocate \$44,000 of joint costs using the following allocation bases:

1. Sales value at split-off
2. Quantity produced
3. Net Realizable Value

PROBLEM 10

Erdley Enterprises has two support departments, Inside Sales and IT. These departments provide support to its two operations departments, Outside Sales and Production. Data for the departments are:

	<u>Inside Sales</u>	<u>IT</u>	<u>Outside Sales</u>	<u>Production</u>
Operating costs	\$180,000	\$120,000	\$\$\$	\$\$\$
Times used Inside Sales	----	100	600	300
IT Service hours	2,000	---	3,000	5,000

Inside Sales Department costs are allocated based on the number of times its services are used. Costs of the IT Department are allocated based on the hours of service it provides.

- 1) Using the Direct Method, allocate the cost of both support departments.
- 2) Using the Step-Down Method, allocate the IT Department costs, assuming it would be the first department to be allocated.
- 3) Using the Step-Down Method, allocate the Inside Sales Department costs, assuming it would be the first department to be allocated.