Department-Charlie during the month and 2,000 remained in work in process at the end of the month, one-fourth complete.

Required:
Prepare a cost of production summary for Department-Bravo for the month ended May 31.

P5-6 **Cost of production summary, multiple departments; no beginning inventory**

LO6

Department-Brooklyn, the second department in a three-department production process for NYC Inc., received 15,000 units with a total cost of $45,000 from Department-Bronx during the month of May. Production costs in Brooklyn during the month were: materials, $9,000; labor, $6,000; and factory overhead, $12,000. Of the 15,000 units transferred in, 12,000 were completed and transferred to Department-Queens during the month and 3,000 remained in work in process at the end of the month, two-thirds complete.

Required:
Prepare a cost of production summary for Department-Brooklyn for the month ended May 31.

P5-7 **Departmental cost worksheet analysis; cost of production summary, three departments, no beginning inventories**

LO6

Phillies Manufacturing Co. has three departments and uses the process cost system of accounting. A portion of the departmental cost work sheet prepared by the cost accountant at the end of July is reproduced below.

Phillies Manufacturing Co.
Department Cost Work Sheet
For the Month Ended July 31, 2013

Analysis	Cost per unit transferred	Units received in department	Units transferred or on hand	Amount charged to department	Amount credited to department
Cutting:					
Started in process		6,600			
Costs for month:					
Materials				$30,000	
Labor				16,000	
Factory overhead				14,000	
Completed and transferred to Shaping	$10,00		5,400		$54,000
Closing inventory in process (1/2 completed)			1,200		6,000
Total		6,600	6,600	$60,000	$60,000

Shaping:					
Received during month from Cutting....		5,400		$54,000	
Costs added during month:					
Materials....................	0.25			1,200	
Labor....................	1.25			6,000	
Factory overhead....................	1.00			4,800	
Completed and transferred to Finishing ..	$12.50		4,400		$55,000
Closing inventory in process (2/5 completed)....................			1,000		11,000
Total....................		5,400	5,400	$66,000	$66,000
Finishing:					
Received during month from Shaping ..		4,400		$55,000	
Costs added during month:					
Materials....................	1.50			6,300	
Labor....................	1.00			4,200	
Factory overhead....................	1.50			6,300	
Completed and transferred to stock.....	$16.50		4,000		$66,000
Closing inventory in process (1/2 completed)....................			400		5,800
Total....................		4,400	4,400	$71,800	$71,800

Required:
Prepare a cost of production summary for each department. (Round unit costs to three decimal places.)

P5-8 **Journal entries and cost of goods manufactured statement required:**

LO6

Using the data in P5-7:

1. Draft the necessary entries to record the manufacturing costs incurred during the month of July.
2. Prepare a statement of cost of goods manufactured for the month ended July 31.

P5-9 **Change in unit cost from prior department and valuation of inventory**

LO7

Pasquale Products Co. has two departments: Mixing and Cooking. At the beginning of the month, Cooking had 4,000 units in process with costs of $8,600 from Mixing, and its own departmental costs of $500 for materials, $1,000 for labor, and $2,500 for factory overhead. During the month, 10,000 units were received from Mixing with a cost of $25,000. Cooking incurred costs of $4,250 for materials, $8,500 for labor, and $21,250 for factory overhead, and finished 12,000 units. At the end of the month, there were 2,000 units in process, one-half completed.

Required:

1. Determine the unit cost for the month in Cooking.
2. Determine the new average unit cost for all units received from Mixing.

3. Determine the unit cost of goods finished.
4. Determine the accumulated cost of the goods finished and of the ending work in process.

(Round unit costs to three decimal places.)

P5-10 Cost of production summary, two departments; beginning inventory (similar to Self-Study Problem 2)

LO7

Reynolds Inc. uses a process cost system. The records for May show the following information:

Production Report	**Cutting**	**Grinding**
Units in process, May 1	5,000	10,000
Started during the month	20,000	–
Received from prior department		15,000
Finished and transferred	15,000	10,000
Finished and on hand	5,000	–
Units in process, May 31	5,000	15,000
Stage of completion	1/5	1/3

Production Costs		
Work in process, May 1:		
Costs transferred in from Cutting:		$ 50,000
Materials	$ 5,000	5,000
Labor	6,450	5,500
Factory overhead	3,550	3,500
Costs incurred during the month:		
Materials	37,000	40,000
Labor	45,000	44,000
Factory overhead	50,000	37,000
Total	$147,000	$185,000

Required:

Prepare a cost of production summary for each department. (Hint: When preparing the Grinding production summary, refer to the Cutting production summary for the costs transferred in during the month.)

P5-11 Ledger account analysis; cost of production summary

LO7

Analyze the information presented in the following general ledger account of Mankato Manufacturing Co., which has three departments: Shaping, Forming, and Finishing:

Work in Process—Forming

Mar. 1	10,250	Mar. 31	50,000
31 Materials	4,000		
31 Labor	8,000		
31 Factory overhead	6,000		
31 Shaping	36,000		

Additional facts:

a. 2,000 units were in process at the beginning of the month, one-half completed. (Hint: The beginning inventory cost of $10,250 minus the beginning inventory costs transferred in from Shaping equal the costs added in Forming.)
b. 9,000 units were received from Shaping during the month.
c. 8,000 units were transferred to Finishing during the month.
d. Unit costs in Shaping and Forming were the same for March as for the prior month. (Hint: To arrive at the beginning inventory costs transferred in from Shaping, you must first determine the unit cost in Shaping.)
e. The ratio of materials, labor, and factory overhead costs for Forming in the beginning and ending balances of Work in Process was in the same ratio as the costs incurred in Forming during the current month. (Hint: After you determine the total beginning inventory costs added in Forming, use the above mentioned ratio to break the total into materials, labor, and factory overhead.)

Required:
Prepare a cost of production summary for March.

P5-12 Journal entries LO7

Required:
Using the data in P5-11, draft the journal entries to record:

1. The cost of goods received from Shaping during the month.
2. The production costs incurred in Forming during the month.
3. The cost of goods completed and transferred to Finishing during the month.

P5-13R Cost of production summary, three departments; change in unit cost from prior department; departmental cost work sheet; journal entries; manufacturing statement LO7 LO8

Ito Manufacturing Co. uses the process cost system. The following information for the month of December was obtained from the company's books and from the production reports submitted by the department heads:

Production Report	Mixing	Blending	Bottling
Units in process, beginning of period	2,500	1,500	3,000
Started in process during month	12,500	–	–
Received from prior department	–	13,000	10,000
Finished and transferred	13,000	10,000	11,000
Finished and on hand	–	500	–
Units in process, end of period	2,000	4,000	2,000
Stage of completion	1/4	4/5	1/2