Required:

1. Prepare a schedule of cost of goods manufactured for the month of March.
2. Prepare a schedule to compute the prime costs (direct material and direct labor) incurred during March.
3. Prepare a schedule to compute the conversion costs (direct labor and manufacturing overhead) charged to work in process during March.

(CMA, adapted)

Problem 3–53
Proration of Overapplied or Underapplied Overhead
(LO 3-2, 3-4, 3-5, 3-6)

3. Underapplied overhead: $6,000

Midnight Sun Apparel Company uses normal costing, and manufacturing overhead is applied to work-in-process on the basis of machine hours. On January 1 of the current year, there were no balances in work-in-process or finished-goods inventories. The following estimates were included in the current year's budget.

Total budgeted manufacturing overhead	$235,000
Total budgeted machine hours	47,000

During January, the firm began the following production jobs:

A79:	1,000 machine hours
N08:	2,500 machine hours
P82:	500 machine hours

During January, job numbers A79 and N08 were completed, and job number A79 was sold. The actual manufacturing overhead incurred during January was $26,000.

Required:

1. Compute the company's predetermined overhead rate for the current year.
2. How much manufacturing overhead was applied to production during January?
3. Calculate the overapplied or underapplied overhead for January.
4. Prepare a journal entry to close the balance calculated in requirement (3) into Cost of Goods Sold.
5. Prepare a journal entry to prorate the balance calculated in requirement (3) among the Work-in-Process Inventory, Finished-Goods Inventory, and Cost of Goods Sold accounts.

Problem 3–54
Ethical Issues; Underapplication of Manufacturing Overhead
(LO 3-1, 3-2, 3-4, 3-6)

Marc Jackson has recently been hired as a cost accountant by Offset Press Company, a privately held company that produces a line of offset printing presses and lithograph machines. During his first few months on the job, Jackson discovered that Offset has been underapplying factory overhead to the Work-in-Process Inventory account, while overstating expenses through the General and Administrative Expense account. This practice has been going on since the start of the company, which is in its sixth year of operation. The effect in each year has been favorable, having a material impact on the company's tax position. No internal audit function exists at Offset, and the external auditors have not yet discovered the underapplied factory overhead.

Prior to the sixth-year audit, Jackson had pointed out the practice and its effect to Mary Brown, the corporate controller, and had asked her to let him make the necessary adjustments. Brown directed him not to make the adjustments, but to wait until the external auditors had completed their work and see what they uncovered.

The sixth-year audit has now been completed, and the external auditors have once again failed to discover the underapplication of factory overhead. Jackson again asked Brown if he could make the required adjustments and was again told not to make them. Jackson, however, believes that the adjustments should be made and that the external auditors should be informed of the situation.

Since there are no established policies at Offset Press Company for resolving ethical conflicts, Jackson is considering one of the following three alternative courses of action:

- Follow Brown's directive and do nothing further.
- Attempt to convince Brown to make the proper adjustments and to advise the external auditors of her actions.
- Tell the Audit Committee of the Board of Directors about the problem and give them the appropriate accounting data.

Required:

1. For each of the three alternative courses of action that Jackson is considering, explain whether or not the action is appropriate.
2. Independent of your answer to requirement (1), assume that Jackson again approaches Brown to make the necessary adjustments and is unsuccessful. Describe the steps that Jackson should take in proceeding to resolve this situation.

(CMA, adapted)

Problem 3–55
Predetermined Overhead Rate; Different Time Periods; Pricing
(LO 3-4)

4. Predetermined rate: $4.44 per hour (rounded)

Troy Electronics Company calculates its predetermined overhead rate on a quarterly basis. The following estimates were made for the current year.

	Estimated Manufacturing Overhead	Estimated Direct-Labor Hours	Quarterly Predetermined Overhead Rate (per direct-labor hour)
First quarter	$100,000	25,000	?
Second quarter	80,000	16,000	?
Third quarter	50,000	12,500	?
Fourth quarter	70,000	14,000	?
Total	$300,000	67,500	

The firm's main product, part number A200, requires $100 of direct material and 20 hours of direct labor per unit. The labor rate is $15 per hour.

Required:

1. Calculate the firm's *quarterly* predetermined overhead rate for each quarter.
2. Determine the cost of one unit of part number A200 if it is manufactured in January versus April.
3. Suppose the company's pricing policy calls for a 10 percent markup over cost. Calculate the price to be charged for a unit of part number A200 if it is produced in January versus April.
4. Calculate the company's predetermined overhead rate for the year if the rate is calculated *annually*.
5. Based on your answer to requirement (4), what is the cost of a unit of part number A200 if it is manufactured in January? In April?
6. What is the price of a unit of part A200 if the predetermined overhead rate is calculated annually?

Problem 3–56
Overhead Application Using a Predetermined Overhead Rate
(LO 3-2, 3-4, 3-5, 3-6)

2. Cost of job 77: $200,675
6. Underapplied overhead for November: $4,575

Tiana Shar, the controller for Bondi Furniture Company, is in the process of analyzing the overhead costs for the month of November. She has gathered the following data for the month.

Labor	
Direct-labor hours:	
Job 77	3,500
Job 78	3,000
Job 79	2,000
Labor costs:	
Direct-labor wages	$204,000
Indirect-labor wages	15,000
Supervisory salaries	6,000
Material	
Inventories, November 1:	
Raw material and supplies	$ 10,500
Work in process (job 77)	54,000
Finished goods	112,500
Purchases of raw material and supplies:	
Raw material	$135,000
Supplies (indirect material)	15,000

(continued)