

# JOB-ORDER COSTING

## Job-order Costing; T-Accounts; Income Statement

Gold Nest Company is a family-owned enterprise that makes birdcages in Chinatown. A popular pastime among older Chinese men is to take their pet birds on daily excursions to teahouses and public parks. The birdcages are often elaborately constructed from exotic woods and contain porcelain feeding bowls and silver roosts. Gold Nest Company makes a broad range of birdcages that it sells through an extensive network of street vendors who receive commissions on their sales. All the company's transactions with customers, employees, and suppliers are conducted in cash; there is no credit.

The company uses a job-order costing system in which overhead is applied to jobs on the basis of direct labor cost. At the beginning of the year, it was estimated that the total direct labor cost for the year would be \$200,000 and the total manufacturing overhead cost would be \$330,000. At the beginning of the year, the inventory balances were as follows:

|                       |          |
|-----------------------|----------|
| Raw Materials .....   | \$25,000 |
| Work in Process ..... | 10,000   |
| Finished Goods .....  | 40,000   |

During the year, the following transactions were completed:

- a. Raw materials purchased for cash, \$275,000.
- b. Raw materials requisitioned for use in production, \$280,000 (materials costing \$220,000 were charged directly to jobs; the remaining materials were indirect).
- c. Costs for employee services were incurred as follows:

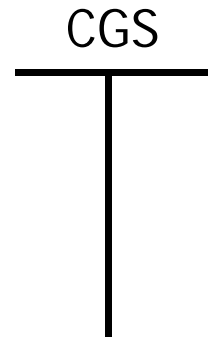
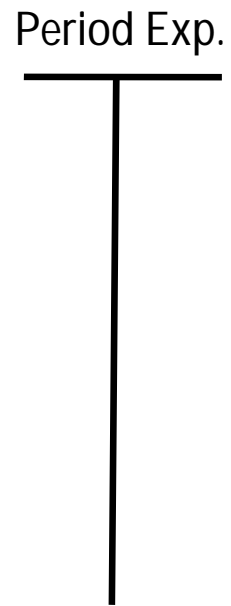
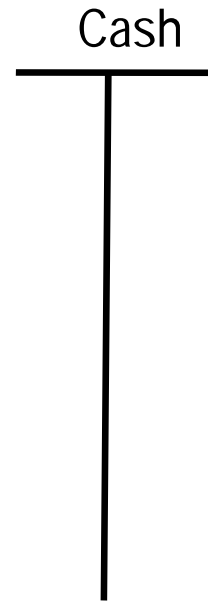
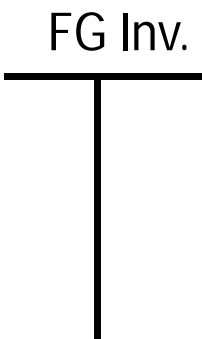
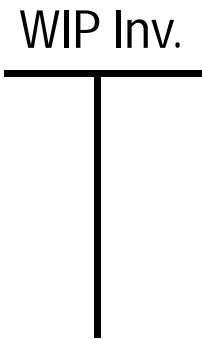
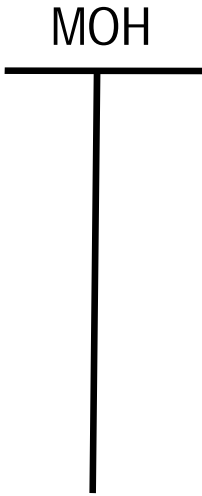
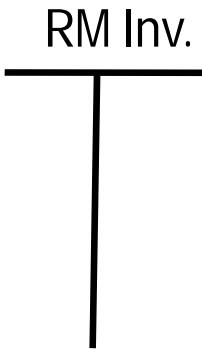
|                              |          |
|------------------------------|----------|
| Direct labor .....           | \$18,000 |
| Indirect labor .....         | 72,000   |
| Sales commissions .....      | 63,000   |
| Administrative salaries..... | 90,000   |

- d. Rent for the year was \$18,000 (\$13,000 of this amount related to factory operations, and the remainder related to selling administrative activities).
- e. Utility costs incurred in the factory, \$57,000.
- f. Advertising costs incurred, \$140,000.
- g. Depreciation recorded on equipment, \$100,000. (\$88,000 of this amount was on equipment used in factory operations; the remaining \$12,000 was on equipment used in selling and administrative activities).
- h. Manufacturing overhead cost was applied to jobs, \$ \_\_\_\_\_.
- i. Goods that cost \$675,000 to manufacture according to their job cost sheets were completed during the year.
- j. Sales for the year totaled \$1,250,000. The total cost to manufacture these goods according to their job cost sheets was \$700,000.

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Requirements:

1. Prepare T-accounts for inventories, Manufacturing Overhead, and Cost of Goods Sold. Enter the beginning balances and compute an ending balance in the inventory accounts.
2. Is Manufacturing Overhead underapplied or overapplied for the year? Include T-account postings to close any balance in the Manufacturing Overhead account to Cost of Goods Sold.
3. Prepare an income statement for the year.



3. Prepare an income statement for the year.

**Gold Nest Company  
Income Statement**

Sales .....\$  
Less Cost of Goods Sold ( ..... ).....  
Gross Margin .....  
Less Selling and Admin. Expenses:  
    Sales Commissions ..... \$  
    Administrative Salaries .....  
    Rent Expense .....  
    Advertising Expense.....  
    Depreciation Expense.....  
Net Income .....\$

3. Prepare an income statement for the year.

|   |                |                   |
|---|----------------|-------------------|
| Sales .....                                   | \$1,250,000    |                   |
| Less Cost of Goods Sold (\$700,000-7000)..... | <u>693,000</u> |                   |
| Gross Margin .....                            | 557,000        |                   |
| Less Selling and Admin. Expenses:             |                |                   |
| Sales Commissions .....                       | \$ 63,000      |                   |
| Administrative Salaries .....                 | 90,000         |                   |
| Rent Expense .....                            | 5,000          |                   |
| Advertising Expense.....                      | 140,000        |                   |
| Depreciation Expense.....                     | <u>12,000</u>  | <u>310,000</u>    |
| Net Income .....                              |                | <u>\$ 247,000</u> |

## JOB-ORDER COSTING EXAMPLE

Kenworth Company uses a job-order costing system. Only three jobs—Job 105, Job 106, and Job 107—were worked on during November and December. Job 105 was completed on December 10; the other two jobs were still in production on December 31, the end of the company's operating year. Data from the job cost sheets of the three jobs are given below:

|                                 | Job Cost Sheet |          |          |
|---------------------------------|----------------|----------|----------|
|                                 | Job 105        | Job 106  | Job 107  |
| <b>November costs incurred:</b> |                |          |          |
| Direct materials .....          | \$16,500       | \$9,300  | \$0      |
| Direct labor .....              | \$13,000       | \$7,000  | \$0      |
| Manufacturing overhead .....    | \$20,800       | \$11,200 | \$0      |
| <b>December costs incurred:</b> |                |          |          |
| Direct materials .....          | \$0            | \$8,200  | \$21,300 |
| Direct labor .....              | \$4,000        | \$6,000  | \$10,000 |
| Manufacturing overhead .....    | ?              | ?        | ?        |

Job 105 was completed during December. Determine the balance at December 31 in the Work in Process inventory account. How much of this balance consists of costs charged to Job 106? Job 107?

| <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; border-bottom: 1px solid black;">Raw Materials</th> </tr> </thead> <tbody> <tr> <td style="width: 50%;">Bal. 40,000</td> <td style="width: 50%; border-left: 1px solid black; padding-left: 10px;">(a) 33,500</td> </tr> </tbody> </table>   | Raw Materials            |  | Bal. 40,000 | (a) 33,500 | <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; border-bottom: 1px solid black;">Work in Process</th> </tr> </thead> <tbody> <tr> <td style="width: 50%;">Bal. 77,800*</td> <td style="width: 50%; border-left: 1px solid black; padding-left: 10px;">(e) 60,700</td> </tr> <tr> <td>(a) 29,500</td> <td style="border-left: 1px solid black; padding-left: 10px;"></td> </tr> <tr> <td>(b) 20,000</td> <td style="border-left: 1px solid black; padding-left: 10px;"></td> </tr> <tr> <td>(d) 32,000</td> <td style="border-left: 1px solid black; padding-left: 10px;"></td> </tr> <tr> <td style="border-top: 1px solid black;">Bal. 98,600</td> <td style="border-top: 1px solid black; border-left: 1px solid black; padding-left: 10px;"></td> </tr> </tbody> </table> | Work in Process  |  | Bal. 77,800*           | (e) 60,700 | (a) 29,500 |            | (b) 20,000 |  | (d) 32,000 |  | Bal. 98,600 |  |
|--|--------------------------|--|-------------|------------|--|------------------|--|------------------------|------------|------------|------------|------------|--|------------|--|-------------|--|
| Raw Materials  |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| Bal. 40,000  | (a) 33,500               |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| Work in Process  |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| Bal. 77,800*   | (e) 60,700               |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| (a) 29,500   |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| (b) 20,000   |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| (d) 32,000   |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| Bal. 98,600  |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; border-bottom: 1px solid black;">Finished Goods</th> </tr> </thead> <tbody> <tr> <td style="width: 50%;">Bal. 85,000</td> <td style="width: 50%; border-left: 1px solid black; padding-left: 10px;"></td> </tr> <tr> <td>(e) 60,700</td> <td style="border-left: 1px solid black; padding-left: 10px;"></td> </tr> </tbody> </table> | Finished Goods           |  | Bal. 85,000 |            | (e) 60,700   |                  | <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; border-bottom: 1px solid black;">Manufacturing Overhead</th> </tr> </thead> <tbody> <tr> <td style="width: 50%;">(a) 4,000</td> <td style="width: 50%; border-left: 1px solid black; padding-left: 10px;">(d) 32,000</td> </tr> <tr> <td>(b) 8,000</td> <td style="border-left: 1px solid black; padding-left: 10px;"></td> </tr> <tr> <td>(c) 19,000</td> <td style="border-left: 1px solid black; padding-left: 10px;"></td> </tr> </tbody> </table> | Manufacturing Overhead |            | (a) 4,000  | (d) 32,000 | (b) 8,000  |  | (c) 19,000 |  |             |  |
| Finished Goods   |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| Bal. 85,000  |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| (e) 60,700   |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| Manufacturing Overhead   |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| (a) 4,000  | (d) 32,000               |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| (b) 8,000  |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| (c) 19,000   |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; border-bottom: 1px solid black;">Salaries &amp; Wages Payable</th> </tr> </thead> <tbody> <tr> <td style="width: 50%;"></td> <td style="width: 50%; border-left: 1px solid black; padding-left: 10px;">(b) 28,000</td> </tr> </tbody> </table>   | Salaries & Wages Payable |  |             | (b) 28,000 | <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; border-bottom: 1px solid black;">Accounts Payable</th> </tr> </thead> <tbody> <tr> <td style="width: 50%;"></td> <td style="width: 50%; border-left: 1px solid black; padding-left: 10px;">(c) 19,000</td> </tr> </tbody> </table>   | Accounts Payable |  |                        | (c) 19,000 |            |            |            |  |            |  |             |  |
| Salaries & Wages Payable   |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
|  | (b) 28,000               |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
| Accounts Payable   |                          |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |
|  | (c) 19,000               |  |             |            |  |                  |  |                        |            |            |            |            |  |            |  |             |  |

|   |                 |
|---|-----------------|
| * Job 105 materials, labor, and overhead at November 30 ..... | \$50,300        |
| Job 106 materials, labor, and overhead at November 30 .....   | <u>27,500</u>   |
| Total Work in Process inventory at November 30 ....           | <u>\$77,800</u> |

The overhead cost applied to each job during December was:

|  |                 |
|--|-----------------|
| Job 105: $\$4,000 \times 160\%$ .....  | \$6,400         |
| Job 106: $\$6,000 \times 160\%$ .....  | 9,600           |
| Job 107: $\$10,000 \times 160\%$ ..... | <u>16,000</u>   |
| Total applied overhead .....           | <u>\$32,000</u> |

The total cost of Job 105 was:

|  |                 |
|--|-----------------|
| Direct materials .....   | \$16,500        |
| Direct labor ( $\$13,000 + \$4,000$ ) .....                      | 17,000          |
| Manufacturing overhead applied ( $\$17,000 \times 160\%$ ) ..... | <u>27,200</u>   |
| Total cost .....   | <u>\$60,700</u> |

The balance in Work in Process at December 31 was \$98,600. The breakdown of this amount between Jobs 106 and 107 is:

|                              | <i>Job</i><br><u>106</u> | <i>Job</i><br><u>107</u> | <i>Total</i><br><u></u> |
|------------------------------|--------------------------|--------------------------|-------------------------|
| Direct materials .....       | \$17,500                 | \$21,300                 | \$38,800                |
| Direct labor .....           | 13,000                   | 10,000                   | 23,000                  |
| Manufacturing overhead ..... | <u>20,800</u>            | <u>16,000</u>            | <u>36,800</u>           |
| Total cost .....             | <u>\$51,300</u>          | <u>\$47,300</u>          | <u>\$98,600</u>         |