



Income, Cost of Goods Sold, and Operating Expenses

To keep a business operating and organized, three more areas of accounting must be used. Those areas are income, cost of goods sold, and operating expenses. **Income** is simply *the revenue (money) received*. **Cost of goods sold** is *the amount the business paid for the merchandise for sale*. In some businesses, the cost of goods sold includes all of the cost involved in producing a product to be sold. *The utilities, employee wages, insurance, property taxes, office supplies, and any other expenses incurred by the business are operating expenses.*

Suppose you own a bicycle shop. You must buy some bicycles and bicycle accessories. You then sell the items to customers. The amount the customers pay is called the income. The amount you as a business person pay is called the cost of goods sold. All other expenses to the business besides the cost of the goods sold are operating expenses.



EXAMPLE 1

Ron Thompson sold \$15 in bicycle tires, \$18 in bicycle parts and five bicycles that were \$229 each. What was Ron's total income?

- a. First find the income from the five bicycles that were sold.

$$\begin{array}{r} \$ 229 \text{ Cost per bicycle} \\ \times 5 \text{ Bicycles sold} \\ \hline \$ 1,145 \text{ Income from bicycle sales} \end{array}$$

- b. To find the total income, add all of the sales together.

$$\begin{array}{r} \$ 15 \text{ Tire sales} \\ 18 \text{ Parts sales} \\ + 1,145 \text{ Bicycle sales} \\ \hline \$ 1,178 \text{ Total income} \end{array}$$

Homework

Solve the word problems.

1. Mark Mohr operates an appliance rental store. During one year he rented out ninety-seven refrigerators for six months at \$72 per month; fifty-three televisions for one year at \$48 per month, and seventy-eight washing machines for nine months at \$53 per month. What was his total rental income?

2. The Wooden Toymaker just received a shipment of wood to make Christmas toys. The shipment had 125 blocks of wood each worth \$6. If it cost \$23 for glue and \$165 for toy packaging, what was the total cost of goods sold?
3. Last year the Delectable Pastry Company sent eleven of their pastry chefs to a pastry school in France. The round-trip air fare cost \$1,150 per chef, and the schooling cost \$2,550 per chef. What was the total of these travel and education expenses?
4. If Brad Dunn earns \$199 commission on each set of encyclopedias that he sells, what is his total commission income if he sells 159 sets of encyclopedias in one summer?
5. Schultz Candle Makers is a small candle making operation that produces one-of-a-kind candles. One month they spent \$432 on wax, \$23 on wicks, \$2 per mold on 1,885 disposable plastic molds, and \$8 per employee per hour. They have two employees who each molded candles for 120 hours. What was the total cost of goods sold that month for the candle making shop?
6. During the month of March, Simply Beautiful Hair Designs had the following expenses: \$897 for employee health insurance, \$1,583 for beauty supplies, \$45 for advertising, \$800 for rent, \$26 for repairs, \$66 for water, \$375 for electrical utilities, and \$50 for using a trade name. What was Simply Beautiful Hair Designs' total expenses for the month?



Your bicycle business may already have an inventory of bicycles on hand, but you will most likely purchase more bicycles to be sold during the month. At the end of the month, you will usually have inventory left over. The cost of goods sold for the month is the original cost to you as the owner for the merchandise that you sold. In this situation you may not know how much you actually sold unless you use the following equations:

Goods Available for Sale = Beginning Inventory + Merchandise Purchases

Cost of Goods Sold = Goods Available for Sale – Ending Inventory

EXAMPLE 2

The inventory at the beginning of the year for Julio's Spas and Baths was worth \$125,200. During the year he purchased \$1,648,000 in merchandise. If Julio had \$260,800 in inventory at the end of the year, what was his total cost of goods sold?

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|--|---------------------|--------------------------|
| a. Find the goods available for sale by adding the merchandise purchases to the beginning inventory. | \$ 125,200 | Beginning inventory |
| | + 1,648,000 | Merchandise purchases |
| | <u>\$ 1,773,200</u> | Goods available for sale |
| b. Subtract the ending inventory from the goods available for sale to get the cost of goods sold. | \$1,773,200 | Goods available for sale |
| | <u>– 260,800</u> | Ending inventory |
| | <u>\$1,512,400</u> | Cost of goods sold |

Complete the chart.

	Beginning Inventory	Merchandise Purchases	Goods Available for Sale	Ending Inventory	Cost of Goods Sold
7.	\$487,699	\$2,866,324		\$329,117	
8.	\$26,376	\$284,900		\$78,623	
9.	\$8,289.48	\$43,269.33		\$6,287.16	
10.	\$14,655	\$28,291		\$30,754	



You may need to find the cost to produce one single item. If this is your case, then division can be a useful tool. Division helps you determine how many times one number is contained in another number. The number that you are dividing is called the **dividend**. The dividend is divided by the **divisor** producing a **quotient**.

11. If it cost a total of \$4,450 for Maria's Formals Wholesale Factory to sew 89 formals, what was the cost of goods sold per dress?
12. Each summer Mr. Monroe employs fifteen teen-agers to work at his car wash. Each employee works forty hours per week. If his payroll for a four-week pay period is \$18,960, what is each employee's hourly income?

Solve the word problems.

13. Professor Wasser has written a sequel to his first book. If he receives \$2 in royalties from every book that is sold, what is his royalty income from 10,248 sold books?
14. Jason Fuqua and his father own a bait and tackle store. Their beginning inventory for the quarter was \$68,629. They purchased \$84,400 worth of additional tackle and \$126,238 worth of fishing poles. If they had \$93,289 in inventory at the end of the quarter, what was their total cost of goods sold?
15. Sue, an interior decorator, wanted to use a left-over roll of wallpaper for a border paper around the top of a wall instead of buying special border paper. The roll of wallpaper was 20 inches wide by 16 feet long and cost \$15.99. The roll of border paper was 5 inches wide by 16 feet long and cost \$14.99. If Sue cut the wallpaper in 5-inch widths and used up the whole roll, how much money did she save on expenses by using the wallpaper instead of buying special border paper?
16. Mr. Chow Kai Yen handpaints china plates to be sold in souvenir shops. He purchases china plates by barrels of 100 for \$1,695 per barrel. If on a monthly basis he spends \$82.98 on paint and buys 3 barrels of china plates, what is the cost of goods sold per plate?

17. Praise Records sold 2,680 CDs on the average every month for the past four months. The total income from the CD sales for the past four months was \$77,445.60. What was the individual income from each CD sold?
18. At Maria's Formals Wholesale Factory, the seamstresses used 12 cases of thread at \$16 per case, 20 bolts of material at \$145 per bolt, 3 bolts of elegant lace at \$465 per bolt, and 5 cases of buttons at \$22 per case to make some formals. What was the total cost of goods sold?
19. Arch and Sole Shoe Factory spent \$11,216 on utilities, \$58,986 on material to make shoes, \$86,000 on employee wages and \$10,819 on other miscellaneous overhead costs. If the factory workers produced 16,528 pairs of shoes, what was the production cost (cost of goods sold) per pair to the nearest cent?
20. Diane's Home Decor sells wallpaper and floor tile to home builders. At the beginning of June, Diane had 3,283 rolls of wallpaper each worth \$9.99 and 18,093 square feet of tile worth \$4.89 per square foot in inventory. She bought an additional \$24,275.70 in wallpaper and \$58,680.29 in tile. Her combined ending inventory of wallpaper and floor tile for the month was \$101,829.36. What was the total cost of goods sold?