

# Study Guide and Intervention

## Percent of a Number

One way to find the percent of a number is to write the percent as a fraction and then multiply. Another way is to write the percent as a decimal and then multiply.

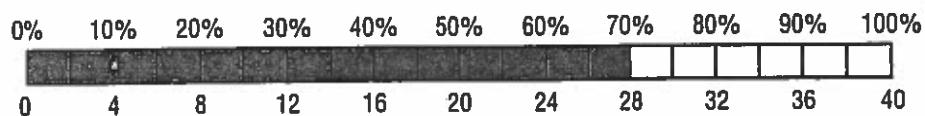
### EXAMPLE 1 Find 70% of 40.

**Method 1** Write the percent as a fraction.

$$70\% = \frac{70}{100} \text{ or } \frac{7}{10}$$

$$\frac{7}{10} \text{ of } 40 = \frac{7}{10} \times 40 \text{ or } 28$$

So, 70% of 40 is 28. Use a model to check the answer.



The model confirms that 70% of 40 is 28.

### EXAMPLE 2 Find 120% of 25.

**Method 1** Write the percent as a fraction.

$$120\% = \frac{120}{100} \text{ or } \frac{6}{5}$$

$$\frac{6}{5} \text{ of } 25 = \frac{6}{5} \times 25 \text{ or } 30$$

So, 120% of 25 is 30.

**Method 2** Write the percent as a decimal.

$$70\% = \frac{70}{100} \text{ or } 0.7$$

$$0.7 \text{ of } 40 = 0.7 \times 40 \text{ or } 28$$

**Method 2** Write the percent as a decimal.

$$120\% = \frac{120}{100} \text{ or } 1.2$$

$$1.2 \text{ of } 25 = 1.2 \times 25 \text{ or } 30$$

### EXERCISES

Find the percent of each number.

- |                |               |              |
|----------------|---------------|--------------|
| 1. 10% of 120  | 2. 60% of 25  | 3. 75% of 24 |
| 4. 90% of 40   | 5. 120% of 20 | 6. 150% of 2 |
| 7. 15% of 40   | 8. 30% of 70  | 9. 150% of 6 |
| 10. 165% of 20 | 11. 8% of 15  | 12. 6% of 6  |

**Practice: Word Problems*****Percent of a Number***

<p>1. <b>SCHOOL</b> There are 520 students at Northridge High School. 80% of these students take the bus. How many students take the bus?</p>	<p>2. <b>AGE</b> Theresa is 60% as old as her sister Mala, who is 20 years old. How old is Theresa?</p>
<p>3. <b>TIPPING</b> Charlie wants to leave a 15% tip for a meal that costs \$40. How much should Charlie leave for a tip?</p>	<p>4. <b>SALES TAX</b> Charmaine wants to buy a shirt for \$15. If the sales tax is 4% of \$15, how much will she pay in sales tax?</p>
<p>5. <b>FOOTBALL</b> In the 2001–2002 regular season, the Green Bay Packers won 75% of their games. There were 16 regular season games. How many games did Green Bay win?</p>	<p>6. <b>BASEBALL</b> During the 2002 World Series, Rich Aurilia of the San Francisco Giants had a batting average of .250 or 25%. He was at bat 32 times. How many hits did he get?</p>
<p>7. <b>RUNNING</b> Thomas finished the race in 120 minutes. James took 95.5% as long as Thomas to finish the race. How long did it take James to finish the race?</p>	<p>8. <b>SHOPPING</b> A DVD player that normally costs \$160 is on sale for 70% of its normal price. What is the sale price of the DVD player?</p>