



Name \_\_\_\_\_ Date \_\_\_\_\_

## Ratios and Percents (Pages 107–110)

### Expressing a Fraction or Ratio as a Percent

A percent is a ratio that compares a number to 100.

As a ratio:  $\frac{4}{5}$

As a fraction with a denominator of 100:  $\frac{80}{100}$

As a percent: 80%

### EXAMPLES

- A** Express 7 students out of 10 as a percent.

Write the rate as a fraction.  $\frac{7}{10}$

Multiply numerator and denominator by 10 to rename as a fraction with a denominator of

$$100. \frac{70}{100}$$

“Percent” means “per 100” so  $\frac{70}{100}$  is 70%.

- B** Express 45% as a fraction in simplest form.

% means  $\frac{\quad}{100}$ .

$$45\% \text{ is } \frac{45}{100}.$$

The GCF of 45 and 100 is 5.

$$45\% \text{ is } \frac{9}{20}.$$

### Try These Together

1. Express 3 out of 5 as a percent.

*HINT: Write as a fraction. Then multiply numerator and denominator by the same number to rewrite as a number divided by 100.*

2. Express  $\frac{1}{4}$  as a percent.

*HINT: Multiply numerator and denominator by the same number to rewrite as a number divided by 100.*

### PRACTICE

**Express each ratio or fraction as a percent.**

3. 3:10

4. 18:100

5. 3 out of 4

6.  $\frac{8}{10}$

**Express each ratio as a percent.**

7. Twelve out of 20 students are involved in after-school activities.

8. One out of 10 instruments in the band is a flute.

**Express each percent as a fraction in simplest form.**

9. 20%

10. 35%

11. 50%

12. 40%

13. 85%

14. 25%

15. 8%

16. 38%



17. **Standardized Test Practice** Jamal surveyed the students in his class. He found that 2 out of 5 of them read books other than school books for pleasure. What is this ratio expressed as a percent?

**A** 15%

**B** 50%

**C** 40%

**D** 80%

Answers: 1. 60% 2. 25% 3. 30% 4. 18% 5. 75% 6. 80% 7. 60% 8. 10% 9.  $\frac{5}{1}$  10.  $\frac{20}{7}$  11.  $\frac{2}{1}$  12.  $\frac{5}{2}$  13.  $\frac{20}{17}$  14.  $\frac{4}{1}$  15.  $\frac{2}{5}$  16.  $\frac{50}{19}$  17. C