

8-2

Name _____ Date _____

The Percent Proportion (Pages 335–338)

You can use the **percent proportion** to find a percent. The number of parts is called the **percentage** (P). The total number of parts is called the **base** (B).

The ratio $\frac{r}{100}$ is called the **rate**.

Finding a Percent	<p>To find a percent with the percent proportion:</p> <ul style="list-style-type: none"> • Write the percent proportion: $\frac{P}{B} = \frac{r}{100}$. • Find the equal cross products. • Solve the equation.
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EXAMPLES**A** Find 15% of 78.

$$\frac{P}{78} = \frac{15}{100} \quad B = 78, r = 15$$

$$100P = 78(15) \quad \text{Find the cross products.}$$

$$100P = 1170$$

$$P = 11.7 \quad \text{Divide each side by 100.}$$

15% of 78 is 11.7.

B 30 is 60% of what number?

$$\frac{30}{B} = \frac{60}{100} \quad P = 30, r = 60$$

$$30(100) = B(60) \quad \text{Find the cross products.}$$

$$3,000 = 60B$$

$$50 = B \quad \text{Divide each side by 60.}$$

30 is 60% of 50.

Try These Together1. Express $\frac{2}{5}$ as a percent.*HINT: Solve $\frac{2}{5} = \frac{r}{100}$ for r .*

2. Write a percent proportion and find 28% of 13.

*HINT: Use $\frac{P}{13} = \frac{28}{100}$.***PRACTICE****Express each fraction as a percent.**

3. $\frac{3}{10}$

4. $\frac{11}{25}$

5. $\frac{17}{20}$

6. $\frac{7}{50}$

7. $\frac{1}{8}$

8. $\frac{13}{40}$

9. $\frac{5}{16}$

10. $\frac{2}{25}$

Write a percent proportion to solve each problem. Then solve.
Round to the nearest tenth.

11. What is 8% of 270?

12. 12 is 20% of what number?

13. 48 is what percent of 99?

14. 25 is what percent of 45?

15. 15 is 75% of what number?

16. Find 16% of 40.

17. **Pet Food** A birdseed blend is 65% blackoil sunflower seeds. How many pounds of blackoil sunflower seeds are in a 40-pound bag?

18. **Standardized Test Practice** What is 12% of 60?**A** 0.2**B** 6.2**C** 6.8**D** 7.2

Answers: 1. 40% 2. 3.64 3. 30% 4. 44% 5. 85% 6. 14% 7. 12.5% 8. 32.5% 9. 31.25% 10. 8% 11. 21.6 12. 60
 13. 48.5% 14. 55.6% 15. 20 16. 6.4 17. 26 pounds 18. D