Section 6.R.2 **Percentages**

Go to Section 6.R.2 Learn mode in Hawkes to follow along!

A Brief Review of Converting Percents

To change a decimal number to percent,

_____.

To change a percent to a decimal number:

_____.

To change a percent to a fraction (or mixed number):

_____.

To change a fraction (or mixed number) to a percent:

_____.

▶ **Example 2   Changing between Percents and Fractions**

a. Change $12\frac{1}{2}\%$ to a fraction.

b. Change $\frac{3}{8}$ to a percent.

Solution

Exercises

Change each decimal number to a percent.

1. 0.02

2. 1.75

Change each percent to a decimal number.

3. 125%

4. 0.26%

Change each fraction or mixed number to a percent. If necessary, round to the nearest tenth of a percent.

5. $\dfrac{1}{8}$

6. $5\dfrac{3}{10}$

Change each percent to a fraction or mixed number and reduce, if possible.

7. 4%

8. 0.2%

The Basic Percent Equation

The Basic Formula $R \cdot B = A$

$R =$ _____

$B =$ _____

$A =$ _____

"of" means _____.

"is" means _____.

The relationship among R, B, and A is given in the equation

$$R \cdot B = A \quad (\text{or } A = R \cdot B).$$

▶ **Example 4**   **Finding the Base**

57% of what number is 163.191?

Solution

Exercises

Find the unknown quantity. Round your answer to two decimal places, if necessary.

9. 10% of 70 is what number?

10. Find 75% of 12.

11. 150% of _____ is 63.

12. 110% of _____ is 330.

13. _____% of 60 is 90.

14. What percent of 75 is 15?

15. 3 is 2% of what number?

16. 1% of 148 is _____.

Applications with Percents

▶ **Example 6**   **Application: Finding a Discount**

A bicycle was purchased at a discount of 25% of its original price of $1600. What was the sale price?

Solution

Exercises

17. A store owner received a 3% discount from the manufacturer when she bought $15,500 worth of dresses.

    a. What was the amount of the discount?

    b. What did she pay for the dresses?

18. If the sales tax rate is 6.5%, what is the tax on an $800 purchase?

19. A car saleswoman earns a commission of 7% on each car she sells. How much did she earn on the sale of a car for $12,500?