Percents as Decimals and Fractions

Goal: Write percents as decimals and fractions.

Vocabulary

Precent: A ratio whose denominator is 100

EXAMPLE 1 **Writing Percents as Decimals**

> Remember that dividing by 100 is the same as moving the decimal point two places to the left.

a. $0.48\% = 0.48 \div 100 = .0048 = \boxed{0.0048}$

b. $175\% = 175 \div 100 = 1.75 = \boxed{1.75}$

c. $3.6\% = 3.6 \div 100 = .036 = \boxed{0.036}$

EXAMPLE 2 **Finding a Percent of a Number**

Election You are running for class president. In the election, 250 students vote, and 64% of the votes are for you. How many votes do you get?

Solution

To find the number of votes that are for you, multiply 64% by 250.

$64\% \times 250 = \boxed{0.64} \times 250$ Write 64% as a decimal.

$= \boxed{160}$ Multiply.

Answer: You get $\boxed{160}$ votes.

1. 92%	2. 206%	3. 47.5%	4. 0.8%

Use the information in Example 2.

5. What if? Suppose that 56% of the votes are for you in the election. How many votes do you get?

EXAMPLE 3 **Writing Percents as Fractions**

a. $0.48\% = \dfrac{0.48}{100} = \dfrac{0.48 \times 0.48}{100 \times 100} = \dfrac{48}{10,000} = \dfrac{3}{625}$

b. $175\% = \dfrac{175}{100} = \dfrac{175 \div 25}{100 \div 25} = \dfrac{7}{4} = 1\dfrac{3}{4}$

c. $3.6\% = \dfrac{3.6}{100} = \dfrac{3.6 \times 10}{100 \times 10} = \dfrac{36}{1000} = \dfrac{9}{250}$

Homework

Guided Practice Write the percent as a fraction.

6. 78%	7. 0.84%	8. 135%	9. 9.2%