

Percents Greater Than 100 and Less Than 1

All percents can be written as fractions in simplest form and as decimals. Percents greater than 100% represent amounts greater than one whole and can be written as improper fractions and as decimals greater than 1. Percents less than 1% represent amounts less than $\frac{1}{100}$ of the whole.

Write 275% as a fraction in simplest form and as a decimal.

Since percent is parts per hundred, write the percent as a fraction with a denominator of 100.

$$\frac{275}{100}$$

Simplify the fraction.

$$\frac{275}{100} = \frac{275 \div 25}{100 \div 25} = \frac{11}{4} = 2\frac{3}{4}$$

To write the number as a decimal, divide the numerator by the denominator.

$$\text{So, } 275\% = 2\frac{3}{4} = 2.75$$

$$275 \div 100 = 2.75$$

Write $\frac{1}{5}\%$ as a fraction in simplest form and as a decimal.

Write the fraction in the percent as a decimal.

$$\frac{1}{5}\% = 0.2\%$$

Write the percent as a fraction with a denominator of 100.

$$\frac{0.2}{100}$$

Write the numerator as a whole number.

$$\frac{0.2}{100} = \frac{0.2 \times 10}{100 \times 10} = \frac{2}{1,000}$$

Simplify the fraction.

$$\frac{2}{1,000} = \frac{2 \div 2}{1,000 \div 2} = \frac{1}{500}$$

Divide the fraction to write the number as a decimal.

$$\frac{1}{500} = 0.002$$

$$\text{So, } \frac{1}{5}\% = \frac{1}{500} = 0.002.$$

Write each percent as a fraction and as a decimal. Write fractions in simplest form.

1. 137% _____ ; _____

2. 115% _____ ; _____

3. 222% _____ ; _____

4. 500% _____ ; _____

5. 182% _____ ; _____

6. 450% _____ ; _____

7. $0.4\% = \frac{\boxed{}}{100} = \frac{\boxed{}}{100 \times 10} \times 10 = \frac{\boxed{}}{\boxed{}}$; Simplify: $\frac{\boxed{}}{\boxed{}}$; Decimal: _____

8. $\frac{3}{4}\% = \frac{0.75}{100} = \frac{\boxed{}}{100 \times 100} \times 100 = \frac{\boxed{}}{\boxed{}}$ Simplify: $\frac{\boxed{}}{\boxed{}}$; Decimal: _____

9. **Writing to Explain** Caryn and Alfonso bought school supplies. Caryn spent 130% of the amount Alfonso spent. She said that she spent 1.3 times the amount that Alfonso spent. Is Caryn correct? Explain.
