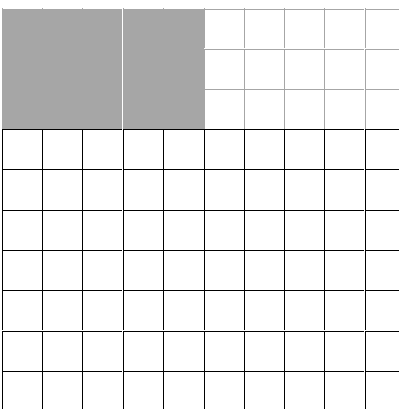


## Introduction to Percents

Percent means "parts of 100."

In the following figure I have 100 parts. If 15 of the parts are shaded, 15% of the figure is shaded:



### WRITING A PERCENT AS A FRACTION OR A DECIMAL

In most applied problems involving percents, it is necessary either to rewrite a percent as a fraction or a decimal or to rewrite a fraction or a decimal as a percent:

To write a percent as a fraction, remove the percent sign and multiply by  $1/100$ :

$$15\% = 15 \times 1/100 = 15/100$$

To rewrite a percent as a decimal, remove the percent sign and multiply by  $0.01$ :

$$15\% = 15 \times 0.01 = 0.15$$

(You move the decimal point two places to the left. Then, remove the percent sign.)

### EXAMPLE

Write 120% as a fraction and as a decimal:

#### **Solution:**

$$\text{Fraction: } 120\% = 120 \times 1/100 = 120/100 = 1 \frac{1}{5}$$

$$\text{Decimal: } 120\% = 120 \times 0.01 = 1.2$$

**WRITING A FRACTION OR A DECIMAL PERCENT**

A fraction or a decimal can be written as a percent by multiplying by 100%.

Write  $\frac{3}{8}$  as a percent.

$$\frac{3}{8} = \quad \frac{3}{8} \times 100\% = \quad \frac{3}{8} \times \frac{100}{1} = \quad 300/8 \% = \quad 37 \frac{1}{2}\% \text{ or } 37.5\%$$

$$\text{Write } 0.37 = \quad 0.37 \times 100\% = \quad 37\%$$

**EXAMPLE**

Write 0.015 as a percent:

**Solution:**

$$0.015 = \quad 0.015 \times 100\% = \quad 1.5\%$$