

Lesson 9.1 Percent

Rules;

1. Percent, %, is a concise way of writing "out of 100"

As a Percent

25%

As a Fraction

$$\frac{25}{100} = \frac{1}{4}$$

As a Decimal Number

0.25

2. The word "of" in mathematical sentences can indicate multiplication.
3. The word "is" in mathematical sentences can indicate division.

Convert each to a fraction and a percent.

	Decimal	Fraction	Percent
a.	<u>0.73</u>	$\frac{73}{100}$	$0.73 = 73\%$
b.	0.03	$\frac{3}{100}$	$0.03 = 3\%$
c.	<u>0.655</u>	$\frac{655 \div 5}{1000 \div 5} = \frac{131}{200}$	$0.655 = 65.5\%$

Convert to a percent and a decimal.

	Decimal	Fraction	Percent
a.	0.17	$\frac{17}{100} = \frac{x}{100}$	17%
b.	0.03	$\frac{3}{100} = \frac{x}{100}$	3%
c.	0.255	$\frac{51}{200} = \frac{x}{100}$	25.5%

Convert to a decimal and a fraction.

	Decimal	Fraction	Percent
a.	$62\% = 0.62$	$\frac{62}{100} = \frac{31}{50}$	62%
b.	$12.8\% = 0.128$	$\frac{12.8}{100} = \frac{128}{1000} = \frac{16}{125}$	12.8%
c.	$8.5\% = 0.085$	$\frac{85}{1000} = \frac{17}{200}$	8 ½%

1. 2/3 of 12 is what?

$$\frac{2}{3} \times \frac{12}{1} = 8$$

2. 25% of 140 is what?

$$25\% \times 140$$

$$0.25 \times 140 = 35$$

3. 8 is 20% of what?

$$8 \div 0.2 = 40$$

4. 50 is what % of 250?

$$\frac{50}{250} = \frac{x}{100} \quad x = 20\%$$