

Mathematical vocabulary

Let's look at some of the words you'll be using this term...

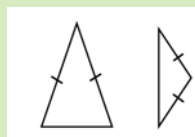
Key Words

Definition

Examples

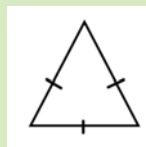
Isosceles triangle

A triangle with two equal sides and two equal angles



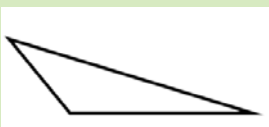
Equilateral triangle

A triangle with three equal sides and three 60° angles



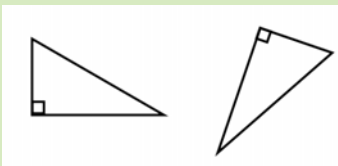
Scalene triangle

A triangle with three different sides and three different angles



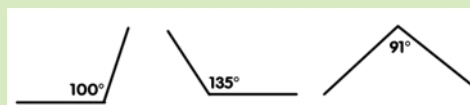
Right-angled triangle

A triangle with one 90° angle



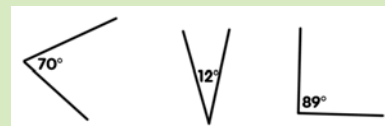
Obtuse

An angle greater than 90° and less than 180°



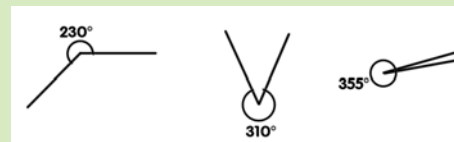
Acute

An angle less than 90°



Reflex

An angle greater than 180° and less than 360°



Mathematical facts

Prime numbers

A prime number is a number which has exactly two factors, 1 and itself

2, 3, 5, 7, 11, 13, 17, 19, 23, 29 ...

Square numbers

A square number is the product of one integer (whole number) being multiplied by itself

- 1 x 1 = **1** **1** is a square number
- 2 x 2 = **4** **4** is a square number
- 3 x 3 = **9** **9** is a square number
- 4 x 4 = **16** **16** is a square number
- 5 x 5 = **25** **25** is a square number
- 6 x 6 = **36** **36** is a square number
- 7 x 7 = **49** **49** is a square number
- 8 x 8 = **64** **64** is a square number
- 9 x 9 = **81** **81** is a square number
- 10 x 10 = **100** **100** is a square number
- 11 x 11 = **121** **121** is a square number
- 12 x 12 = **144** **144** is a square number

Facts, formulae and procedures

Number facts

Let's review some of the facts, formulae and procedures that you've learned in the past...

To convert a decimal to a percentage:

Multiply by 100

E.g. $0.13 \times 100 = 13$ so $0.13 = 13\%$
 $0.7 \times 100 = 70$ so $0.7 = 70\%$
 $0.125 \times 100 = 12.5$ so $0.125 = 12.5\%$
 $1.02 \times 100 = 102$ so $1.02 = 102\%$

To convert a percentage to a decimal:

Divide by 100

E.g. $13 \div 100 = 0.13$ so $13\% = 0.13$
 $5 \div 100 = 0.05$ so $5\% = 0.05$
 $102 \div 100 = 1.02$ so $102\% = 1.02$

To convert a fraction to a decimal

Divide the numerator by the denominator.

E.g. $\frac{2}{5} = 2 \div 5 = 0.4$ so $\frac{2}{5} = 0.4$

Key Words

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Numerator

The **top number** in a fraction, which shows how many parts we have.

$\frac{3}{4}$ ← the **numerator** is 3

Denominator

The **bottom number** in a fraction, which shows how many equal parts the item is divided into.

$\frac{3}{4}$ ← the **denominator** is 4

Some equivalent fractions, decimals and percentages:

$$\frac{1}{2} = 0.5 = 50\%$$

$$\frac{1}{4} = 0.25 = 25\%$$

$$\frac{3}{4} = 0.75 = 75\%$$

$$\frac{1}{100} = 0.01 = 1\%$$

Fact

Examples

When we **add** a **negative** number to ANY number the value will decrease

$$3 + -2 = 1$$

$$-5 + -3 = -8$$

When we **subtract** a **negative** number from ANY number the value will increase

$$4 - -5 = 9$$

$$-2 - -7 = 5$$

When we **multiply** a **negative** number and a **positive** number, the product will be **negative**

$$4 \times -5 = -20$$

$$-2 \times 3 = -6$$

When we **multiply** a **negative** number by a **negative** number, the product will be **positive**

$$-3 \times -2 = 6$$

$$-5 \times -3 = 15$$