

Formulas & Angles

Formulas

Distance from one point (x_1, y_1)

to (x_2, y_2) is...

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

Equations...

Slope - intercept $y = mx + b$

Horizontal line $y = b$

Vertical line $x = a$

Midpoint of a line segment...

$$\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

Quadratic Formula

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

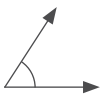
$$a \neq 0$$

Slope of a line containing points

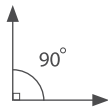
(x_1, y_1) to (x_2, y_2) ...

$$M = \frac{y_2 - y_1}{x_2 - x_1}$$

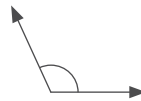
Angles



An acute angle is less than 90°



A right angle is 90°

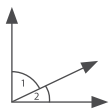


An obtuse angle is greater than 90°



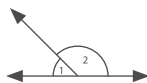
A straight angle is 180°

Complementary angles add up to 90°



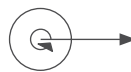
$$\angle 1 + \angle 2 = 90^\circ$$

Supplementary angles add up to 180°

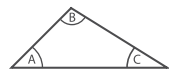


$$\angle 1 + \angle 2 = 180^\circ$$

One complete angle of rotation = 360°



The sum of the angles of a triangle equal 180°



$$\angle A + \angle B + \angle C = 180^\circ$$