

$$\text{Slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

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

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

Circle:

Radius r

Radius r

Center $(0, 0)$

Center (h, k)

$$x^2 + y^2 = r^2$$

$$(x - h)^2 + (y - k)^2 = r^2$$

$$\text{Area of trapezoid} = \left(\frac{b_1 + b_2}{2} \right) h$$

Volume of a Prism = area of the base \times height

Volume of a Pyramid = (area of the base \times height) / 3

Surface Area of a 3D object = the sum of all the areas of its surfaces