

## FORMULAS

<b>AREA of a:</b>	
square	Area = side <sup>2</sup>
rectangle	Area = length × width
parallelogram	Area = base × height
triangle	Area = $\frac{1}{2}$ × base × height
trapezoid	Area = $\frac{1}{2}$ × (base <sub>1</sub> + base <sub>2</sub> ) × height
circle	Area = $\pi$ × radius <sup>2</sup> ; $\pi$ is approximately equal to 3.14.

<b>PERIMETER of a:</b>	
square	Perimeter = 4 × side
rectangle	Perimeter = 2 × length + 2 × width
triangle	Perimeter = side <sub>1</sub> + side <sub>2</sub> + side <sub>3</sub>
<b>CIRCUMFERENCE of a circle</b>	Circumference = $\pi$ × diameter; $\pi$ is approximately equal to 3.14.

<b>VOLUME of a:</b>	
cube	Volume = edge <sup>3</sup>
rectangular solid	Volume = length × width × height
square pyramid	Volume = $\frac{1}{3}$ × (base edge) <sup>2</sup> × height
cylinder	Volume = $\pi$ × radius <sup>2</sup> × height; $\pi$ is approximately equal to 3.14.
cone	Volume = $\frac{1}{3}$ × $\pi$ × radius <sup>2</sup> × height; $\pi$ is approximately equal to 3.14.

<b>COORDINATE GEOMETRY</b>	distance between points = $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ ; (x <sub>1</sub> , y <sub>1</sub> ) and (x <sub>2</sub> , y <sub>2</sub> ) are two points in a plane. slope of a line = $\frac{y_2 - y_1}{x_2 - x_1}$ ; (x <sub>1</sub> , y <sub>1</sub> ) and (x <sub>2</sub> , y <sub>2</sub> ) are two points on the line.
----------------------------	--

<b>PYTHAGOREAN RELATIONSHIP</b>	$a^2 + b^2 = c^2$ ; $a$ and $b$ are legs and $c$ the hypotenuse of a right triangle.
---------------------------------	--

<b>MEASURES OF CENTRAL TENDENCY</b>	<b>mean</b> = $\frac{x_1 + x_2 + \dots + x_n}{n}$ , where the $x$ 's are the values for which a mean is desired, and $n$ is the total number of values for $x$ . <b>median</b> = the middle value of an odd number of <u>ordered</u> scores, and halfway between the two middle values of an even number of <u>ordered</u> scores.
-------------------------------------	---

<b>SIMPLE INTEREST</b>	interest = principal × rate × time
<b>DISTANCE</b>	distance = rate × time
<b>TOTAL COST</b>	total cost = (number of units) × (price per unit)