

Math Formulas

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Mathematics

FORMULAS

AREA of a:

square	Area = side ²
rectangle	Area = length × width
parallelogram	Area = base × height
triangle	Area = $\frac{1}{2}$ × base × height
trapezoid	Area = $\frac{1}{2}$ × (base ₁ + base ₂) × height
circle	Area = π × radius ² ; π is approximately equal to 3.14.

PERIMETER of a:

square	Perimeter = 4 × side
rectangle	Perimeter = 2 × length + 2 × width
triangle	Perimeter = side ₁ + side ₂ + side ₃

CIRCUMFERENCE of a circle

Circumference = π × diameter; π is approximately equal to 3.14.

VOLUME of a:

cube	Volume = edge ³
rectangular solid	Volume = length × width × height
square pyramid	Volume = $\frac{1}{3}$ × (base edge) ² × height
cylinder	Volume = π × radius ² × height; π is approximately equal to 3.14.
cone	Volume = $\frac{1}{3}$ × π × radius ² × height; π is approximately equal to 3.14.

COORDINATE GEOMETRY

distance between points = $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$;
(x_1, y_1) and (x_2, y_2) are two points in a plane.
slope of a line = $\frac{y_2 - y_1}{x_2 - x_1}$; (x_1, y_1) and (x_2, y_2) are two points on the line.

PYTHAGOREAN RELATIONSHIP

$a^2 + b^2 = c^2$; a and b are legs and c the hypotenuse of a right triangle.

MEASURES OF CENTRAL TENDENCY

mean = $\frac{x_1 + x_2 + \dots + x_n}{n}$, where the x 's are the values for which a mean is desired, and n is the total number of values for x .

median = the middle value of an odd number of ordered scores, and halfway between the two middle values of an even number of ordered scores.

SIMPLE INTEREST

interest = principal × rate × time

DISTANCE

distance = rate × time

TOTAL COST

total cost = (number of units) × (price per unit)