

FORMULAS

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| 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. |

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| 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. |

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| 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. |

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| 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. |
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| PYTHAGOREAN RELATIONSHIP | $a^2 + b^2 = c^2$; a and b are legs and c the hypotenuse of a right triangle. |
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| 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 <u>ordered</u> scores, and halfway between the two middle values of an even number of <u>ordered</u> scores. |
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| SIMPLE INTEREST | interest = principal × rate × time |
| DISTANCE | distance = rate × time |
| TOTAL COST | total cost = (number of units) × (price per unit) |