

## Definitions and Formulas for Basic Skills Mathematics

### Definitions

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$>$ is greater than	$\triangle ABC$ triangle $ABC$	$A \cup B$ set $A$ union set $B$
$<$ is less than	$\overleftrightarrow{AB}$ line $AB$	$A \cap B$ set $A$ intersect set $B$
$\pi \approx 3.14$	$\overline{AB}$ line segment $AB$	$\emptyset$ empty set
$\angle$ angle	$AB$ length of line segment $AB$	
$m\angle A$ measure of angle $A$		

### Conversions for Units of Measurement

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	U.S. Standard	Metric	Time
<b>Distance</b>	12 inches = 1 foot 3 feet = 1 yard 5280 feet = 1 mile 1 inch = 2.54 centimeters	1 kilometer = 1000 meters 1 meter = 100 centimeters 1 centimeter = 10 millimeters	1 minute = 60 seconds 1 hour = 60 minutes 1 day = 24 hours
<b>Volume (liquid)</b>	1 gallon = 4 quarts 1 quart = 32 ounces 1 quart $\approx$ 0.95 liters	1 liter = 1000 milliliters 1 cubic centimeter = 1 milliliter	
<b>Mass</b>	1 pound = 16 ounces 1 ton = 2000 pounds 2.2 pounds $\approx$ 1 kilogram	1 gram = 1000 milligrams 1 kilogram = 1000 grams	

### Formulas

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Note: Not all formulas necessary are listed, nor are all formulas listed used on this test.

#### Rectangle

$$\text{Area} = \ell w$$

$$\text{Perimeter} = 2\ell + 2w$$

#### Triangle

$$\text{Area} = \frac{1}{2}bh$$

#### Right triangle

$$\text{Pythagorean formula: } c^2 = a^2 + b^2$$

#### Circle

$$\text{Area} = \pi r^2$$

$$\text{Circumference} = 2\pi r$$

#### Sphere

$$\text{Surface area} = 4\pi r^2$$

$$\text{Volume} = \frac{4}{3}\pi r^3$$

#### Right cylinder

$$\text{Surface area} = 2\pi rh + 2\pi r^2$$

$$\text{Volume} = \pi r^2 h$$

#### Rectangular solid

$$\text{Surface area} = 2\ell w + 2\ell h + 2wh$$

$$\text{Volume} = \ell wh$$

### End of Definitions and Formulas

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