Mathematics Reference Sheet

Conversions

U.S. Customary

1 foot = 12 inches

1 yard = 3 feet

1 mile = 5280 feet

1 acre \approx 43,560 square feet

1 cup = 8 fluid ounces

1 pint = 2 cups

1 quart = 2 pints

1 gallon = 4 quarts

1 gallon = 231 cubic inches

1 pound = 16 ounces

1 ton = 2000 pounds

1 cubic foot \approx 7.5 gallons

U.S. Customary to Metric

1 inch ≈ 2.54 centimeters

1 foot \approx 0.3 meter

1 mile \approx 1.6 kilometers

1 quart \approx 0.95 liter

1 gallon \approx 3.79 liters

 $1 \text{ cup} \approx 237 \text{ milliliters}$

 $1~pound \approx 0.45~kilogram$

1 ounce \approx 28.3 grams

1 gallon \approx 3785 cubic centimeters

Time

1 minute = 60 seconds

1 hour = 60 minutes

1 hour = 3600 seconds

1 year = 52 weeks

Temperature

$$C = \frac{5}{9}(F - 32)$$

$$F = \frac{9}{5}C + 32$$

Metric

1 centimeter = 10 millimeters

1 meter = 100 centimeters

1 kilometer = 1000 meters

1 liter = 1000 milliliters

1 kiloliter = 1000 liters

1 milliliter = 1 cubic centimeter

1 liter = 1000 cubic centimeters

1 cubic millimeter = 0.001 milliliter

1 gram = 1000 milligrams

1 kilogram = 1000 grams

Metric to U.S. Customary

1 centimeter ≈ 0.39 inch

1 meter \approx 3.28 feet

1 kilometer ≈ 0.6 mile

1 liter ≈ 1.06 quarts

1 liter \approx 0.26 gallon

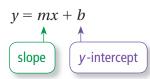
1 kilogram \approx 2.2 pounds

1 gram ≈ 0.035 ounce

1 cubic meter \approx 264 gallon

Equations of Lines

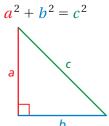
Slope-intercept form



Standard form

$$ax + by = c$$
, a , $b \neq 0$

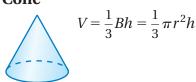
Pythagorean Theorem



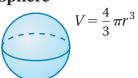
Volume Cylinder



Cone



Sphere



Rules of Exponents

Product of Powers Property: $a^m \cdot a^n = a^{m+n}$

Quotient of Powers Property: $\frac{a^m}{a^n} = a^{m-n}$, where $a \neq 0$

Zero Exponents: $a^0 = 1$, where $a \neq 0$

Negative Exponents: $a^{-n} = \frac{1}{a^n}$, where $a \neq 0$