

Formula and Conversion Sheet

Area

1 square foot = 144 square inches

1 square yard = 9 square feet

1 acre = 43,560 square feet

Box (Rectangular Solid)

volume of a box = $length \times width \times height$

Circle

There are 360° in a circle.

circumference of circle $\approx 3.14 \times diameter$

area of circle $\approx 3.14 \times (radius)^2$

Cone

volume of cone $\approx \frac{3.14 \times (radius)^2 \times height}{3}$

Cube

volume of cube = $(length\ of\ side)^3$

Cylinder

volume of cylinder $\approx 3.14 \times (radius)^2 \times height$

Distance

1 inch = 2.54 centimeters

1 foot = 12 inches

1 foot = 0.3048 meters

1 meter = 1,000 millimeters

1 meter = 100 centimeters

1 yard = 3 feet

1 kilometer = 1,000 meters

1 kilometer ≈ 0.62 miles

1 mile = 5,280 feet

1 mile ≈ 1.61 kilometers

Electricity Conversion

The current in amps = power in DC watts \div volts

1 kilowatt-hour = 1,000 watt-hours

Rectangle

perimeter of rectangle = $2(length + width)$

area of rectangle = $length \times width$

Sphere, or Ball

volume of sphere $\approx \frac{4}{3} \times 3.14 \times (\text{radius})^3$

Temperature Conversions

$^{\circ}\text{C} = 0.56(^{\circ}\text{F} - 32)$ or $\frac{5}{9} (^{\circ}\text{F} - 32)$

$^{\circ}\text{F} = 1.8(^{\circ}\text{C}) + 32$ or $(\frac{9}{5} \times ^{\circ}\text{C}) + 32$

Triangle

sum of interior angles in a triangle = 180°

area of triangle = $\frac{1}{2} (\text{base} \times \text{height})$

Volume

1 cup = 8 fluid ounces

1 quart = 4 cups

1 liter \approx 0.264 gallons

1 gallon = 4 quarts

1 gallon = 231 cubic inches

1 cubic foot = 1,728 cubic inches

1 cubic yard = 27 cubic feet

1 board foot (lumber) = 12 inches \times 12 inches \times 1 inch

Weight

1 milligram = 0.001 grams

1 ounce \approx 28.350 grams

1 pound = 16 ounces

1 pound \approx 453.592 grams

1 kilogram = 1,000 grams

1 kilogram \approx 2.2 pounds

1 ton = 2,000 pounds