Applied Math Formula Sheet

Distance
1 foot = 12 inches
1 yard = 3 feet
1 mile = 5,280 feet
1 mile ≈ 1.61 kilometers
1 inch = 2.54 centimeters
1 foot = 0.3048 meters
1 meter = 1,000 millimeters
1 meter = 100 centimeters
1 kilometer = 1,000 meters

Area
1 square foot = 144 square inches
1 square yard = 9 square feet
1 acre = 43,560 square feet

Volume
1 cup = 8 fluid ounces
1 quart = 4 cups
1 gallon = 4 quarts
1 gallon = 231 cubic inches
1 liter = 0.264 gallons
1 cubic foot = 1,728 cubic inches
1 cubic yard = 27 cubic feet
1 board foot = 1 inch by 12 inches by 12 inches

Weight/Mass
1 ounce ≈ 28.350 grams
1 pound = 16 ounces
1 pound ≈ 453.592 grams
1 milligram = 0.001 grams
1 kilogram = 1,000 grams
1 kilogram ≈ 2.2 pounds
1 ton = 2,000 pounds

Rectangle
perimeter = 2(length + width)
area = length × width

Rectangular Solid (Box)
volume = length × width × height

Cube
volume = (length of side)³

Triangle
sum of angles = 180°
area = \( \frac{1}{2} (base \times height) \)

Circle
number of degrees in a circle = 360°
circumference ≈ 3.14 × diameter
area ≈ 3.14 × (radius)²

Cylinder
volume ≈ 3.14 × (radius)² × height

Cone
volume ≈ \( \frac{3}{3} \times 3.14 \times (radius)^3 \)

Sphere (Ball)
volume ≈ \( \frac{4}{3} \times 3.14 \times (radius)^3 \)

Electricity
1 kilowatt-hour = 1,000 watt-hours
amps = watts ÷ volts

Temperature
°C = \( \frac{5}{9} (°F - 32) \)
°F = \( \frac{9}{5} (°C) + 32 \)