# 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 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 ≈ $3.14 \times diameter$
- area ≈ $3.14 \times (radius)^2$

## Cylinder
- volume ≈ $3.14 \times (radius)^2 \times height$

## Cone
- volume ≈ $\frac{3.14 \times (radius)^2 \times height}{3}$

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

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

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

**NOTE:** Problems on the ACT WorkKeys Applied Math assessment should be worked using the formulas and conversions on this formula sheet.