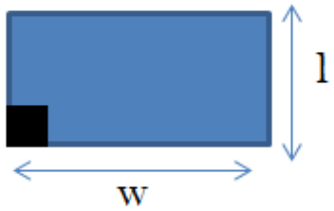
Formula Sheet

Perimeter/Circumference

Rectangle

Perimeter = 2 (length) + 2(width)

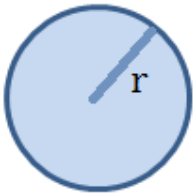


Example:
l = 8
w = 10
2(8) + 2(10) = ?
16 + 20 = 36
Perimeter = 36

Circle

Circumference = 2π(radius)

Note: π ≅ 3.14

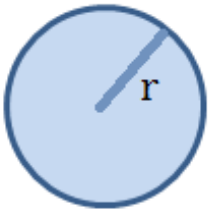


Example:
r = 3
(2)(3.14)(3) = ?
(6.28)(3) = 18.84
Circumference = 18.84

Area – Square Units

Circle

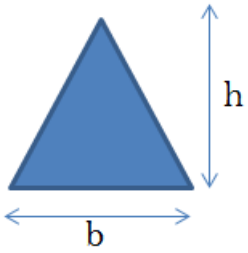
Area = π(radius)^2



Example:
r = 3
$(3.14)(3)^2$ = ?
(3.14)(9) = 28.26
Circumference = 28.26

Triangle

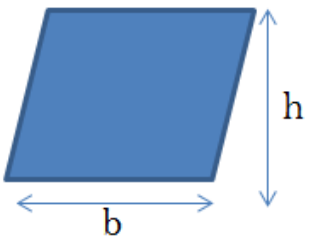
Area = ½ (base)(height)



Example:
h =10
b = 8
½(8)(10) = ?
Area = 40

Parallelogram

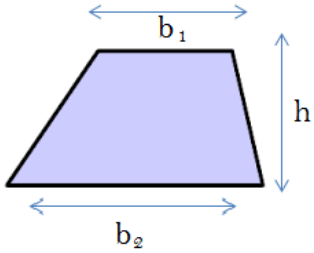
Area = (base)(height)



Example:
b = 5
h = 6
Area = (5)(6)
Area = 30

Trapezoid

Area = ½ ($base_1$+$base_2$)(height)

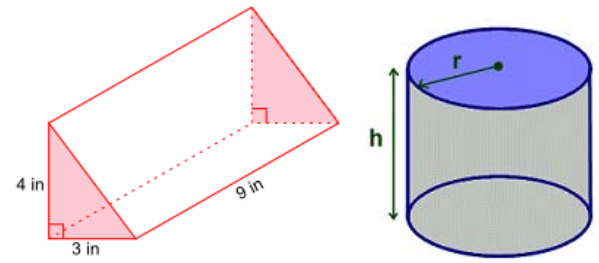


Example:
b_1 = 3, b_2 = 5, h = 6
A = ½(3+5)(6)
A = ½(8)(6)
A = ½(48)
Area = 24

Volume – Cubic Units

Prism/Cylinder

Volume = (area of the Base)(height)

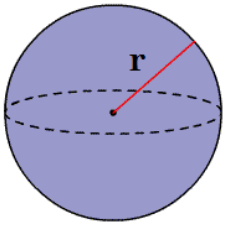


Prism Example:
l = 4
w = 3
h = 9
V =½(4)(3)(9) = ?
Volume = 54

Cylinder Example:
r = 2
h = 8
$V = (3.14)(2)^2(8) = ?$
V = (3.14)(4)(8) = 100.48
Volume = 100.48

Sphere

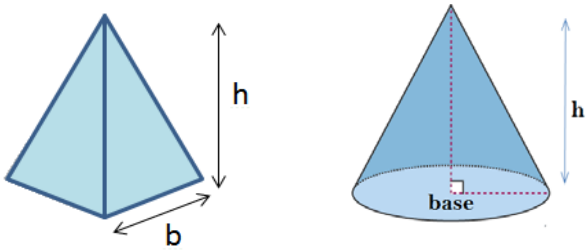
$Volume = 4/3\ \pi(radius)^3$



Example:
r = 3
$V = (4/3)(3.14)(3)^3 = ?$
V = (4/3)(3.14)(27) = 113.04
Volume = 113.04

Pyramid/Cone

Volume = 1/3(area of the base)(height)



Pyramid Example:
b = 3
h = 5
V = 1/3(3)(3)(5) = 15
Volume = 15

Cone Example:
r = 3
h = 5
$V = 1/3(3.14)(3)^2(5) =$
V = 1/3(3.14)(9)(5) = 47.1
Volume = 47.1

Length

1 foot = 12 inches

1 yard = 3 feet

1 mile = 5,280 feet

1 meter = 1,000 millimeters

1 meter = 100 centimeters

1 kilometer = 1,000 meters

1 miles ≈ 1.6 kilometers

1 inch ≈ 2.54 centimeters

1 foot ≈ 0.3 meter

Capacity/Volume

1 cup = 8 fluid ounces

1 pint = 2 cups

1 quart = 2 pints

1 gallon = 4 quarts

1 gallon = 231 cubic inches

1 liter = 1,000 millimeters

1 liter ≈ 0.264 gallon

Weight

1 pound = 16 ounces

1 ton = 2,000 pounds

1 gram = 1,000 milligrams

1 kilogram = 1,000 grams

1 kilogram ≈ 2.2 pounds

1 ounce ≈ 28.3 grams