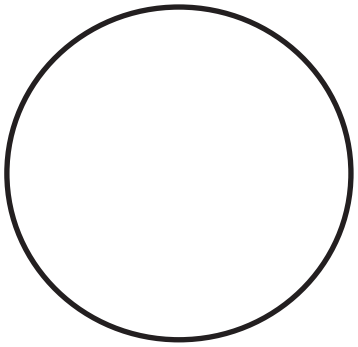
BASIC GEOMETRIC FORMULAS

CIRCLE



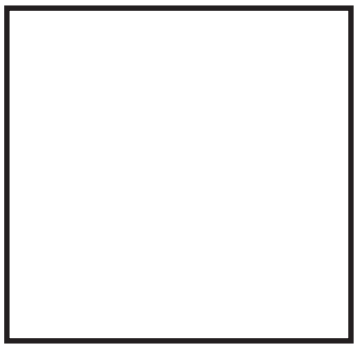
AREA =
Square of diameter X 0.7854
or
Square of radius X 3.1416

CIRCUMFERENCE =
Diameter X 3.1416

DIAMETER =
Circumference X 0.3183

NOTES:
- Doubling diameter increased area four times
- Tripling diameter increases area nine times etc.

SQUARE

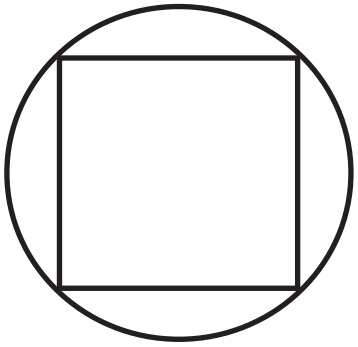


AREA =
Square of side

DIAGONAL =
Side X 1.4142

SIDE =
Diagonal X 0.7071

SQUARE INSCRIBED IN CIRCLE

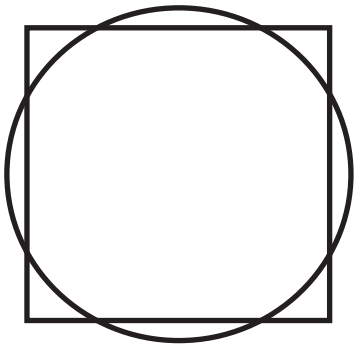


SIDE OF SQUARE =
Diameter of circle X 0.7071
or
Circumference of circle X 0.2251

DIAMETER OF CIRCLE =
Side of square X 1.4142

CIRCUMFERENCE OF CIRCLE =
Side of square X 4.4429

SQUARE & CIRCLE WITH EQUAL AREA



SIDE OF SQUARE =
Diameter of circle X 0.8862

DIAMETER OF CIRCLE =
Side of square x 1.128

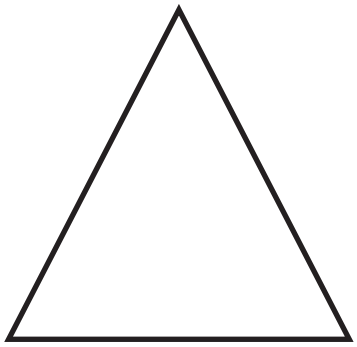
CIRCUMFERENCE OF CIRCLE =
Side of square X 3.545

RECTANGLE

AREA =
Length X width

DIAGONAL =
Square roof of sum of squares of width & length

TRIANGLE



AREA =
Base X ½ of perpendicular height

Area = A **Perimeter =** P **Circumference =** C

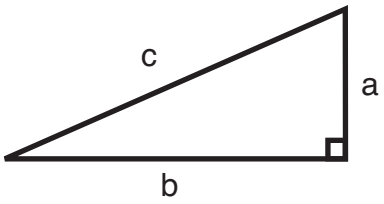
Volume = V **Curved surface area =** S

Altitude = h **Radius =** r

RIGHT TRIANGLE

Pythagoras' theorem:

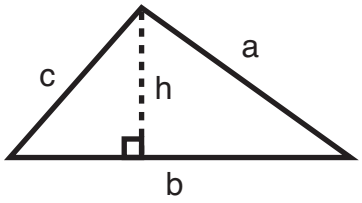
$c^2 = a^2 = b^2$



TRIANGLE

A= 1/2bh

P= a = b = c



CIRCLE

A = πr^2

C = $2\pi r$

SPHERE

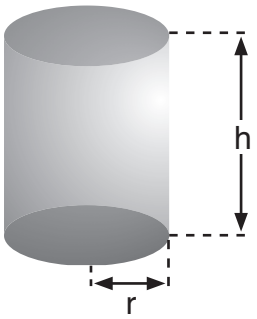
V = $4/3\ \pi r^3$

S = $4\pi r^2$

RIGHT CIRCULAR CYLINDER

V = $\pi r^2 h$

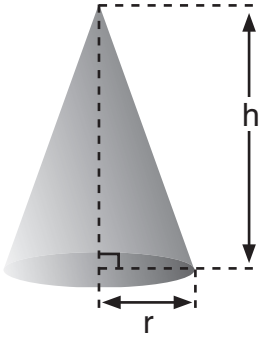
S = $2\pi rh$



RIGHT CIRCULAR CONE

V = $1/3\pi r^2 h$

S = $\pi r\sqrt{r^2} = h^2$



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