

GEOMETRY FORMULAS

A = AREA

A₁ = SURFACE AREA OF SOLIDS

V = VOLUME

C = CIRCUMFERENCE π = Pi (3.14159)

CIRCLE

$$A = \pi \cdot R^2 \quad C = \pi \cdot D$$

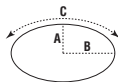
$$R = D / 2 \quad D = 2 \cdot R$$



ELLIPSE

$$A = \pi \cdot A \cdot B$$

$$C = 2 \cdot \pi \cdot \sqrt{\frac{A^2 + B^2}{2}}$$



PARALLELOGRAM

$$A = H \cdot L$$



RECTANGLE

$$A = H \cdot L$$



TRAPEZOID

$$A = H \cdot (L_1 + L_2) / 2$$



SECTOR OF CIRCLE

$$A = (\pi \cdot R^2 \cdot \alpha) / 360$$

$$L = (\pi \cdot R \cdot \alpha) / 180$$

$$\alpha = (L \cdot 180) / (\pi \cdot R)$$

$$R = (L \cdot 180) / (\pi \cdot \alpha)$$



TRIANGLE

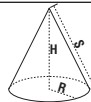
$$A = (W \cdot H) / 2$$



CONE

$$A_1 = (\pi \cdot R \cdot S) + (\pi \cdot R^2)$$

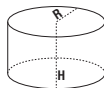
$$V = (\pi \cdot R^2 \cdot H) / 3$$



CYLINDER

$$A_1 = (2 \cdot \pi \cdot R^2) + (2 \cdot \pi \cdot R \cdot H)$$

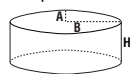
$$V = \pi \cdot R^2 \cdot H$$



ELLIPTICAL TANKS

$$A_1 = 2 \cdot \pi \cdot \left(A \cdot B + H \cdot \sqrt{\frac{A^2 + B^2}{2}} \right)$$

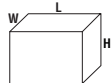
$$V = \pi \cdot A \cdot B \cdot H$$



RECTANGULAR SOLID

$$A_1 = 2 \cdot [(W \cdot L) + (L \cdot H) + (H \cdot W)]$$

$$V = W \cdot L \cdot H$$



SPHERE

$$A_1 = 6 \cdot \pi \cdot R^2$$

$$V = (4 \cdot \pi \cdot R^3) / 3$$



CAPACITY IN GALLONS

For the above contains, capacity in gallons (G) is:

$G = (V / 231)$; when V is in cubic inches

$G = (V \cdot 7.48)$; when V is in cubic feet