

UNIT CONVERSIONS

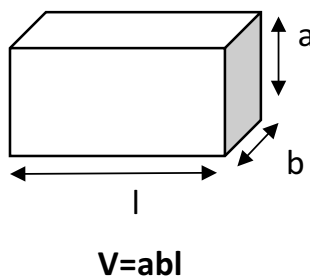
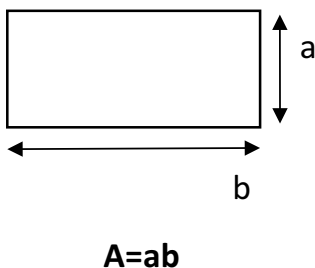
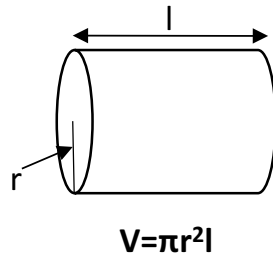
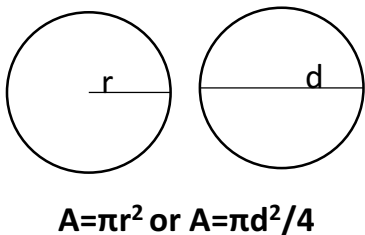
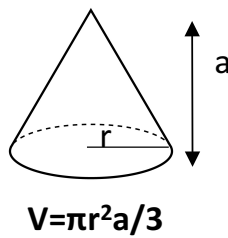
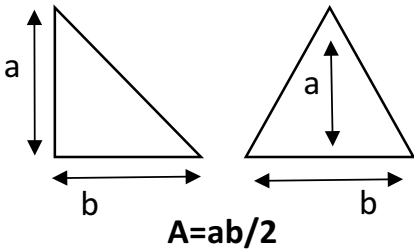
$$\frac{\text{Starting Unit}}{\text{Starting Unit}} \times \text{Desired Unit} = \text{Desired Unit}$$

1. Identify Starting Unit
2. Identify desired Unit
3. Conversion Factor
4. Cross out Units on Left Hand Side (units on left and right hand side must be the same)
5. Multiply/Divide Through Left Hand Side

CONVERSION FACTORS

- 5280 feet / mile
- 43560 feet² / acre
- 7.48 gallon / ft³
- 16 oz / lb
- 2000 lb/ US ton
- 1 kW/ 1.34 hp
- 56 lb / bushel (shelled corn)
- 60 lb/ bushel (soy bean)
- 62.4 lb water / ft³
- 0.75 lb air / ft³

AREA/ VOLUME CALCULATIONS



LINEAR INTERPOLATION

$$y = y_1 + \frac{x - x_1}{x_2 - x_1} (y_2 - y_1)$$

- y- desired value (not in table)
- x- header value at desired value (not in table)
- y₁, y₂- table values on either side of desired value, y
- x₁, x₂- header values on either side of x

	x	
x ₁	x ₂	x ₃
y ₁	y ₂	y ₃
	y	

MISCELLANEOUS

- Volume of a sphere: $V=4\pi r^3/3$
- $Q=vA$ (Volumetric flow rate [ft³/min]= velocity [ft/min] * cross sectional area [ft²])
- $V=IR$ (voltage [V] =current [Amp] * resistance [Ohm])
- $P=IV$ (Power [W] =current [Amp] * voltage [Ohm])
- Dry matter=total weight*(1-%moisture)
- Corrected weight=dry matter/ (1-%moisture)
- Moisture Content Wet Basis =(wet weight – dry weight)/wet weight
- Dry Matter = 1- Moisture Content Wet Basis

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