

BREAK-EVEN FORMULAE :

$$\text{Break Even Point} = \frac{\text{Fixed Costs}}{\text{Contribution per unit}} \quad (\text{answer in units})$$

$$\text{Contribution per unit} = \text{Selling Price per unit} - \text{Variable Costs per unit.}$$

$$\text{Sales Revenue} = \text{Selling price per unit} \times \text{output}$$

$$\text{Total Costs} = \text{fixed costs} + \text{variable costs.}$$

$$\text{Margin of Safety} = \text{Actual Output} - \text{Break Even point.}$$

$$\text{Profit} = \text{Sales Revenue} - \text{Total Costs}$$

$$\text{Profit} = \text{Margin of Safety} \times \text{contribution per unit}$$

$$\text{Profit} = \text{Total Contribution} - \text{fixed costs.}$$

$$\text{Total Contribution} = \text{Contribution per unit} \times \text{output}$$

Axes: Maximum x axis (output) = Capacity or 2x Break even point.

Maximum y axis (£) = maximum x axis value
x selling price per unit.

Numbers Needed to Calculate Break Even / draw the chart:

Fixed Costs... (usually a large number, over a period of time eg per year)
Variable Costs per unit... (usually a small number)
Selling Price per unit

Numbers Needed to calculate Margin of Safety:
Actual Output.