

Break Even Chart Solving Graphically

Example: If the fixed cost is \$4320, selling price per unit is \$25 and variable cost per unit is \$15. What is the total cost equation? What is the Break Even Point in units and dollars? Draw a Break Even Chart.

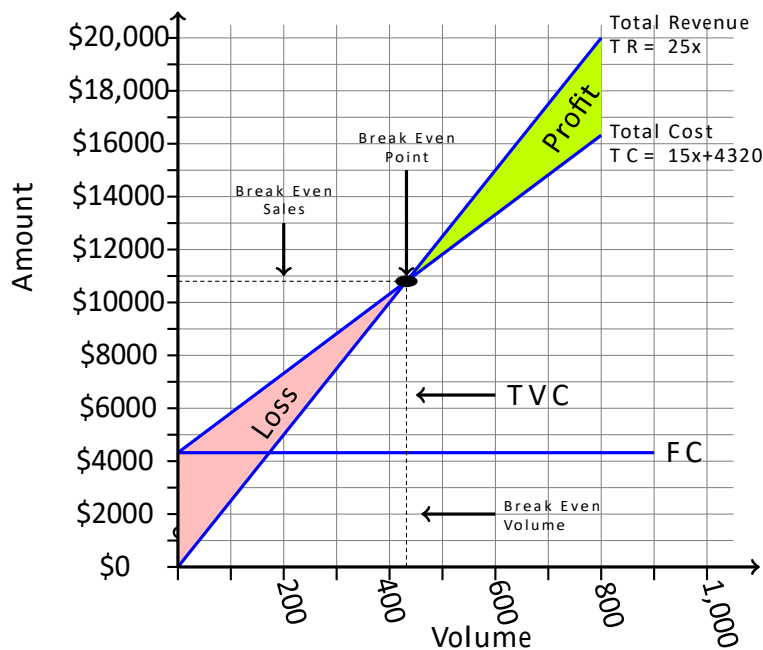
Step 1: Calculating T C

$$\begin{aligned} \text{Total Variable Cost} &= 15 * x \\ \text{TVC} &= 15x \\ \text{Total Cost} &= \text{TVC} + \text{FC} \\ \text{TC} &= 15x + 4320 \end{aligned}$$

Step 2: Calculating T R

$$\begin{aligned} \text{Total Revenue} &= 25 * x \\ \text{TR} &= 25x \end{aligned}$$

Step 3: Make a Break Even Chart



Step 4: Calculating Break Even Point

At Break Even point,

$$\begin{aligned} \text{TR} &= \text{TC} \\ 25x - 15x &= 15x + 4320 - 15x \\ \frac{10x}{10} &= \frac{4320}{10} \\ x &= 432 \end{aligned}$$

Break Even Point = 432 Units

Break Even Point in dollars = Number of units x Selling Price
= 432 x \$25 = \$10800



- 1) If,
Fixed cost = 5520
Selling price per unit = 45
Variable cost per unit = 20

Find:

- a. What is the total cost equation?
- b. Draw a detailed Break Even Chart.
- c. Find the Break Even Point in units.
- d. Find the Break Even Point in dollars.

- 2) Alex wants to start greeting card business. He will need to lease equipment at \$4000 a month. It will cost him \$1 to print a card and he can sell it for \$5.

Find:

- a. What is the total cost equation?
- b. Draw a detailed Break Even Chart.
- c. Find the Break Even Point in units.
- d. Find the Break Even Point in dollars.

- 3) Dan wants to sell chairs for \$120 each. First, he must rent a store front for \$3,500 per month, and pay \$1,300 per month in labour costs. Also, each chair costs Dan \$80 to make.

- a. What is the total cost equation?
- b. Draw a detailed Break Even Chart.
- c. Find the Break Even Point in units.
- d. Find the Break Even Point in dollars.



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