

**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.

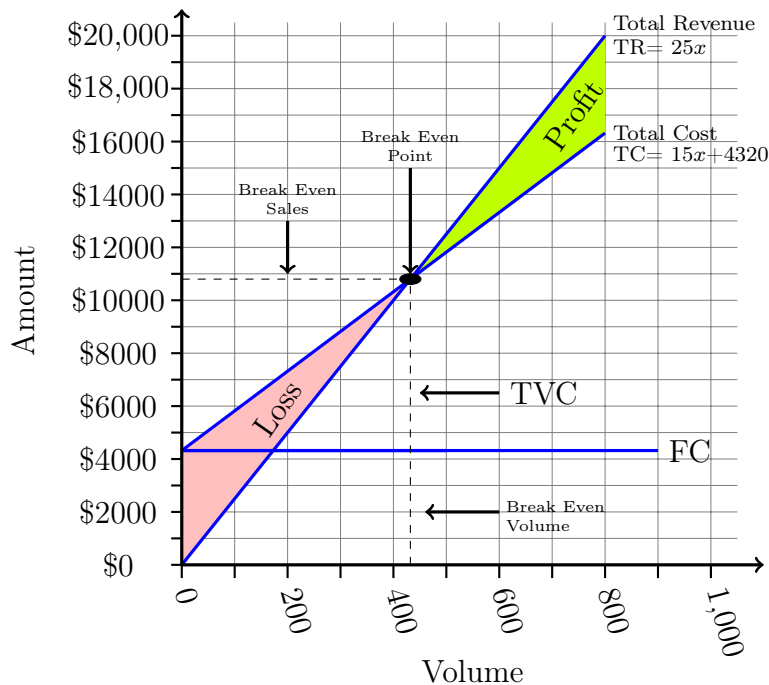
**Step 1: Calculating TC**

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

**Step 2: Calculating TR**

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

**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

$$\begin{aligned} \text{Break Even Point in dollars} &= \text{Number of units} \times \text{Selling Price} \\ &= 432 \times \$25 \\ &= \$10800 \end{aligned}$$

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.