

# Break-Even Worksheet

<b>Price</b> 300.00	<b>Var. Cost</b> 250.00	<b>Quantity</b> 3,200.00
<b>Fix Cost</b> 150,000.00		<b>Profit</b> 10,000.00
<b>Total Sales</b>	<b>Total Cost</b>	<b>Cost / Unit</b>

This worksheet implements a quick way to perform break-even analysis based on the following equation:

$$\text{Profit} = (\text{Price} - \text{Var.Cost}) \cdot \text{Units} - \text{Fix.Cost}$$

Break-Even Menu Actions	
<b>[Price]</b>	Stores or calculates the Price value : <b>Price = (Profit + Fix.Cost) ÷ Units + Var.Cost</b>
<b>[Var.Cost]</b>	Stores or calculates the Variable Cost value : <b>Var.Cost = Price - (Profit + Fix.Cost) / Units</b>
<b>[Fix Cost]</b>	Stores or calculates the Fix Cost value : <b>Fix.Cost = (Price - Var.Cost) · Units - Profit</b>
<b>[Units]</b>	Stores or calculates the Number of Units value : <b>Units = (Profit + Fix.Cost) / (Price - Var.Cost)</b>
<b>[Profit]</b>	Stores or calculates the Profit value : <b>Profit = (Price - Var.Cost) · Units - Fix.Cost</b>
<b>[Total Sales]</b>	Calculates the Total Sales Value: <b>Total Sales = Price · Units</b>
<b>[Total Cost]</b>	Calculates the Total Cost value: <b>Total Cost = Var.Cost · Units + Fix Cost</b>
<b>[Total Cost per Unit]</b>	Calculates the Total Cost per unit value: <b>Unit Cost = Total Cost / Units</b>
If any other key is pressed before one of the <b>Blue</b> keys, the displayed number is stored in the corresponding variable. Otherwise, the variable is calculated.	

## Example :

The sale price of an item is \$300.00, the cost of production per unit is \$250.00, and the monthly fixed cost of the business is \$150,000.00. How many units would have to be sold for break-even? and for profit of 10,000.00?.

Keystrokes	Description
300 [ Price ]	Stores the sale price of the item.
250 [ Var.Cost ]	Stores the variable cost of the item.
150000 [ Fix.Cost ]	Stores the fixed cost of the business.
0 [ Profit ]	Stores the "0" profit (break-even).
[ Units ]	Calculates the number of units to be sold. <b>Units = 3,000</b> items
10000 [ Profit ]	Stores the the target profit.
[ Units ]	Calculates the number of units to be sold. <b>Units = 3,200</b> items

What is the total cost per unit for break-even and for a profit of \$10,000.00?

Keystrokes	Description
0 [ Profit ] [ Units ]	Stores the "0" profit (break-even) and calculates <b>Units</b>
[ Cost / Unit ]	Calculates the total cost per item. <b>Cost = 300.00</b> per item.
10000 [ Profit ] [ Units ]	Stores the "10,000" profit and calculates <b>Units = 3,200.00</b>
[ Cost / Unit ]	Calculates the total cost per item. <b>Cost = 296.88</b> per item.