

# Breakeven Selling Price

Computing the breakeven selling price for your product is an important calculation when *setting your sale price*. It tells you the minimum price you can sell your product for and still cover your costs. The breakeven sale price should be computed over a range of production and sale quantities using the formula below.

$$\text{Breakeven Sale Price} = \frac{\text{Total Fixed Cost}}{\text{Volume of Production}} + \text{Variable Cost per Unit}$$

First you need to categorize your costs into the *managerial cost* categories of fixed and variable. A key concept in this formula is the fixed cost per unit of sales. Because total fixed costs are constant regardless of the volume of production, the fixed cost per unit of production drops as volume increases, as shown below.

Then divide the total fixed cost by the volume of production to calculate the fixed cost per unit of production.

Total Fixed Cost		Volume of Production		Fixed Cost per Unit
\$100	divided by	50	equals	\$2
\$100	divided by	25	equals	\$4
\$100	divided by	20	equals	\$5
\$100	divided by	10	equals	\$10

Next add the fixed cost per unit to the variable cost per unit to compute a total cost per unit. This is your breakeven sale price.

Fixed Cost per Unit		Variable Cost per Unit		Total Cost per Unit (breakeven sale price)
\$2	plus	\$5	equals	\$7
\$4	plus	\$5	equals	\$9
\$5	plus	\$5	equals	\$10
\$10	plus	\$5	equals	\$15

The larger the number of units you produce and sell, the smaller the sale price needed to breakeven, and vice versa. If selling price is set, profits may accrue at high volumes of production but losses occur at low volumes.

Assume that you pick a sale price of \$10. Let's examine what will happen to profits if you produce and sell a range of different quantities of the product.

Sale Price		Volume of Production			Gross Income
\$10	multiplied by	50	equals	\$500	
\$10	multiplied by	25	equals	\$250	
\$10	multiplied by	20	equals	\$200	
\$10	multiplied by	10	equals	\$100	
Variable Cost per Unit		Volume of Production			Total Variable Costs
\$5	multiplied by	50	equals	\$250	
\$5	multiplied by	25	equals	\$125	
\$5	multiplied by	20	equals	\$100	
\$5	multiplied by	10	equals	\$50	
Total Variable Costs		Total Fixed Costs			Total Costs
\$250	plus	\$100	equals	\$350	
\$125	plus	\$100	equals	\$225	
\$100	plus	\$100	equals	\$200	
\$50	plus	\$100	equals	\$150	
Gross Income		Total Costs			Profit/Loss
\$500	less	\$350	equals	\$150	
\$250	less	\$225	equals	\$25	
\$200	less	\$200	equals	\$0	
\$100	less	\$150	equals	-\$50	

At sales of 50 units the business generates profits of \$150. However, at sales of 10 units, a loss of \$50 is incurred.

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