# Break-even Point 

(Crossword Puzzle \#2)


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## Crossword Puzzle (breakeven Point *2)



## Across (Break-even Point \#2)

2. The $\qquad$ -squares method is used to calculate the best fitting line through the points in a scattergraph.
3. When using one of the techniques for analyzing a mixed cost, it is important to prepare a scatter- $\qquad$ of all of the observations to be certain that the data does not contain an outlier.
4. The coefficient of $\qquad$ represented by $\mathrm{r}^{2}$, indicates the percentage change in the dependent variable (e.g. total cost in the shipping department) that is explained by the change in the independent variable (e.g. the number of parcels shipped).
5. The break-even point in sales dollars can be found by dividing the fixed costs and expenses by the contribution margin $\qquad$ or percentage.
6. Make or buy decisions usually rely on cost behavior in the $\qquad$ -run.
7. A high degree of correlation does not guarantee that there is a $\qquad$ -and-effect relationship between the independent and dependent variables.
8. A company has one product with a selling price of $\$ 20$ and variable costs and expenses of $\$ 8$ per unit. The fixed costs and expenses are $\$ 32,000$ and the company has a target profit of $\$ 28,000$. To reach the target profit, the company must sell $\qquad$ thousand units of the product.
9. A product sells for $\$ 20$ and it has variable costs and expenses of $\$ 8$ per unit. The contribution margin ratio for this product is $\qquad$ percent.
10. A product sells for $\$ 30$ and has variable costs and expenses of $\$ 18$ per unit. The fixed costs and expenses are $\$ 20,000$. The break-even point in sales dollars is $\qquad$ thousand dollars.
11. Total fixed costs and expenses divided by the contribution margin per unit gives you the break-even point in $\qquad$ .
12. The number of independent variables in multiple regression is $\qquad$ or more.
13. $\qquad$ programming is a tool to compute the optimum mix of products given the product's contribution margin per unit and the specified quantities of scarce resources.
14. Fixed costs are assumed to remain constant in total only within a reasonable or relevant
$\qquad$ of volume or activity.

## ACrOSS (Break-even Point \#2)

30. The break-even point in units can be found by dividing the fixed costs and expenses by the contribution margin per $\qquad$ -.
31. In the equation of a line for a mixed cost, $y=a+b x$, " $y$ " is the $\qquad$ variable.
32. When deciding between two alternatives, the amounts that are the $\qquad$ in each of the alternatives are not relevant to the decision.
33. An independent variable with a high $r^{2}$ would be a good candidate as a cost $\qquad$ in activity-based costing.
34. Differential expenses and revenues are adequate for short- $\qquad$ decisions.
35. There is only one independent variable in $\qquad$ regression analysis.
36. When two variables tend to vary together, we say there is some $\qquad$ between the variables.
37. A product sells for $\$ 15$ and has variable costs and expenses of $\$ 7$ per unit. The company's fixed costs and expenses are $\$ 24,000$. The number of units that must be sold in order to break-even is $\qquad$ thousand units.
38. A cost line may be curved, but within a pertinent or $\qquad$ range of volume, the line may be nearly straight.
39. Total fixed costs and expenses divided by the contribution margin percentage gives you the break-even point in $\qquad$ .
40. In the equation of a line for a mixed cost, $y=a+b x$, " $y$ " is the expected total $\qquad$ .

## Down (Break-even Point \#2)

1. Costs that remain the same in total even though volume or activity changes.
2. If you $\qquad$ the correlation coefficient, you will know the percentage of change in the dependent variable that is explained by the change in the independent variable.
3. A correlation coefficient with the digit $\qquad$ indicates perfect correlation.
4. Variable selling and administrative expenses are not a part of the calculation of the $\qquad$ profit, but are part of the calculation of the contribution margin.
5. A method for determining the fixed and variable portions of a mixed cost by using just two points of activity and the total costs at those points of activity is the $\qquad$ -low method.
6. A statistical tool to find the best fitting line through a group of points is $\qquad$ analysis.
7. Excluding fixed manufacturing overhead from a manufacturer's inventory is referred to as variable costing or $\qquad$ costing.
8. The " $P$ " in CVP.
9. The point where revenues are equal to the total of the fixed costs and variable costs.
10. The $\qquad$ margin per unit equals selling price minus all variable costs and expenses per unit.
11. The amount of sales that are above the break-even point is referred to as the margin of
$\qquad$ —.
12. Costs that increase in proportion with the increase in volume or activity.
13. An observation (cost and/or activity) that is outside of the normal pattern and could distort the formula for a mixed cost.
14. The total amount of a mixed cost is $\$ 30,000$ when the activity is 6,000 hours and it is $\$ 26,000$ when the activity is 5,000 hours. Using the high-low method, the variable cost is $\qquad$ dollars per hour.
15. The formulas for mixed costs are helpful in preparing a $\qquad$ budget.

## Down (break-even Point *2)

25. After reaching the break-even point, the next unit sold should result in the company's profit being equal to the contribution $\qquad$ per unit.
26. In determining the contribution margin, variable costs include the variable manufacturing costs and the variable administrative and selling $\qquad$ .
27. The t- $\qquad$ is an indication of the confidence in the coefficients of the independent variables contained in the equation for estimating a cost.
28. In the equation of a line for a mixed cost, $y=a+b x$, "x" is the $\qquad$ variable.
29. Long-run decisions should be based on $\qquad$ cash flow calculations.
30. The relative proportion of units sold is the sales $\qquad$ .
31. Costs that are partially fixed and partially variable.
32. In the equation of a line for a mixed cost, $y=a+b x$, " $a$ " is the point where the line would cross the $y$ - $\qquad$ —.
33. In the equation of a line for a mixed cost, $y=a+b x$, the $\qquad$ of the line is indicated by " b ".
34. The total amount of a mixed cost is $\$ 16,000$ when the activity is 6,000 hours and it is $\$ 14,000$ when the activity is 4,000 hours. Using the high-low method, the fixed cost is $\qquad$ thousand dollars.

## Solutions (Breakeven Point t2)



