# Cost Behavior – Analysis and Use

Mixed Costs: Contains both variable and fixed cost elements.

$Y = a + bx$

Y = Total Mixed Costs, Dependent Variable

A = Total Fixed Costs

B = Variable Costs per unit

X = Level of Activity, Independent Variable

*This equation allows you to calculate what the total mixed costs would be for any level of activity within the relevant range

*This is the same as the slope formula learned in algebra Y = mx + b, and the point-slope formula $y - y_1 = m(x - x_1)$

High-Low Method: A method of separating a mixed cost into its fixed and variable elements by analyzing the change in cost between the high and low activity levels

$$\text{Variable Cost} = \frac{\text{Change In Cost}}{\text{Change in Activity}} = \text{Slope of the Line} = b$$

$$B = \frac{Y_2 - Y_1}{X_2 - X_1}$$

*Then use B, and two points (either $X_2$ & $Y_2$ OR $X_1$ & $Y_1$) to solve for Total Fixed costs.

$$Y = a + bx$$
$$A = y - bx$$

Fixed cost element = Total Cost minus Variable Cost Element

*Then create equation for your data. Example y = #x +#

Contribution Margin: The amount remaining from sales revenues after variable expenses have been deducted

| | |
|---|---|
| Sales | xx |
| Less: Variable Costs | ( xx ) |
| = Contribution Margin | xx |
| Less: Fixed Costs | ( xx ) |
| = Net Income | xx |

*This instructional aid was prepared by the Tallahassee Community College Learning Commons.*