



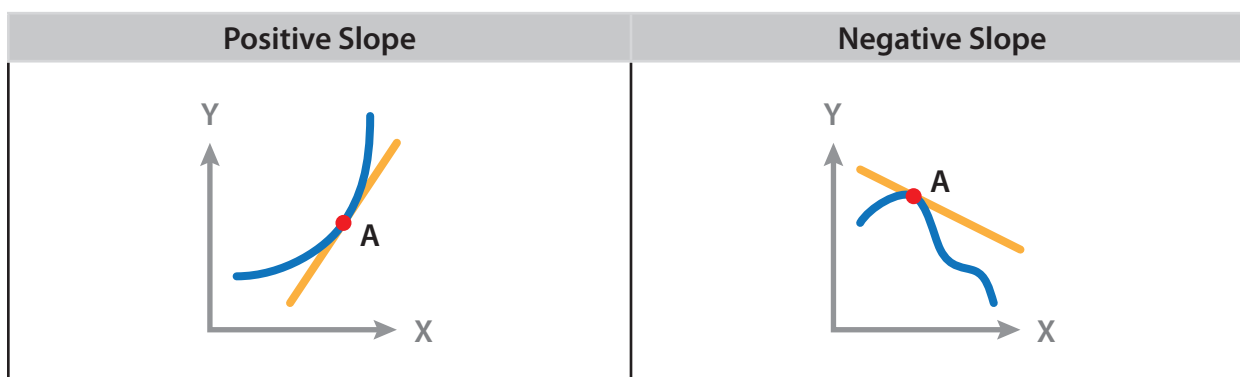
Supplement

Calculating the Slope of a Line

Remember that the slope of a line (linear relationship) is constant, but the slope of a non-linear curve (non linear relationship) changes from point to point.

In chemistry rate reactions, most reactions will have a non-linear relationship. This means that we will measure the slope at one point on the curve. This is done using a tangent line.

A tangent line is a line that touches a curve at a single point and does not cross through it. The slope of a curve at a point is equal to the slope of the line that is tangent to the curve at that point. You can fit a line to the curve by using a ruler or straight edge for accuracy.



$$\text{Slope} = \frac{\Delta y = (y_2 - y_1)}{\Delta x = (x_2 - x_1)}$$

To Determine the Slope of the Tangent Line

1. Identify two points on the line.
2. Select one to be (x_1, y_1) and the other to be (x_2, y_2) .
3. Use the slope equation to calculate slope.

