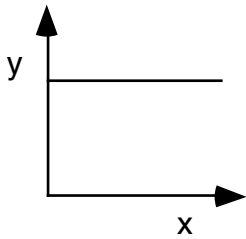
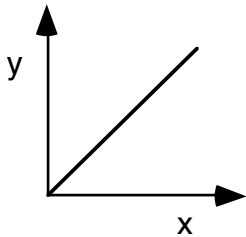

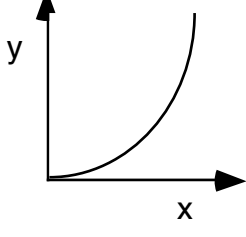
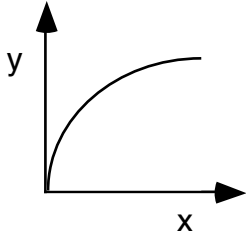


CP Graphical Methods-Summary

A graph is one of the most effective representations of the relationship between two variables. The independent variable (one controlled by the experimenter) is usually placed on the x-axis. The dependent variable (one that responds to changes in the independent variable) is usually placed on the y-axis.

Graph shape	Written relationship	Analyze>Curve Fit (in LoggerPro)	Algebraic representation
	<p>As x increases, y remains the same. There is no relationship between the variables.</p> <p>Y is independent of x.</p>	<p><i>Linear - mx + b</i></p> <p>set m(slope) to 0</p> <p>use the arrows to change "b" until the RMSE is the closest to zero possible</p>	<p>$y = b$, or</p> <p>y is constant</p>
	<p>As x increases, y increases proportionally.</p> <p>Y is directly proportional to x.</p>	<p><i>Analyze>Linear Fit</i></p>	<p>$y = mx + b$</p>
	<p>As x increases, y decreases.</p> <p>Y is inversely proportional to x.</p>	<p><i>Inverse - A/x</i></p>	<p>$y = A/x$</p>
	<p>Y is proportional to the square of x.</p>	<p><i>Power - Ax^B</i></p> <p>set B to 2</p> <p>use the arrows to change "A" until the RMSE is the closest to zero possible</p>	<p>$y = Ax^2$</p>
	<p>Y is proportional to the square root of x.</p>	<p><i>Power - Ax^B</i></p> <p>set B to 0.5</p> <p>use the arrows to change "A" until the RMSE is the closest to zero possible</p>	<p>$y = Ax^{0.5}$</p> <p>or</p> <p>$y = A\sqrt{x}$</p>