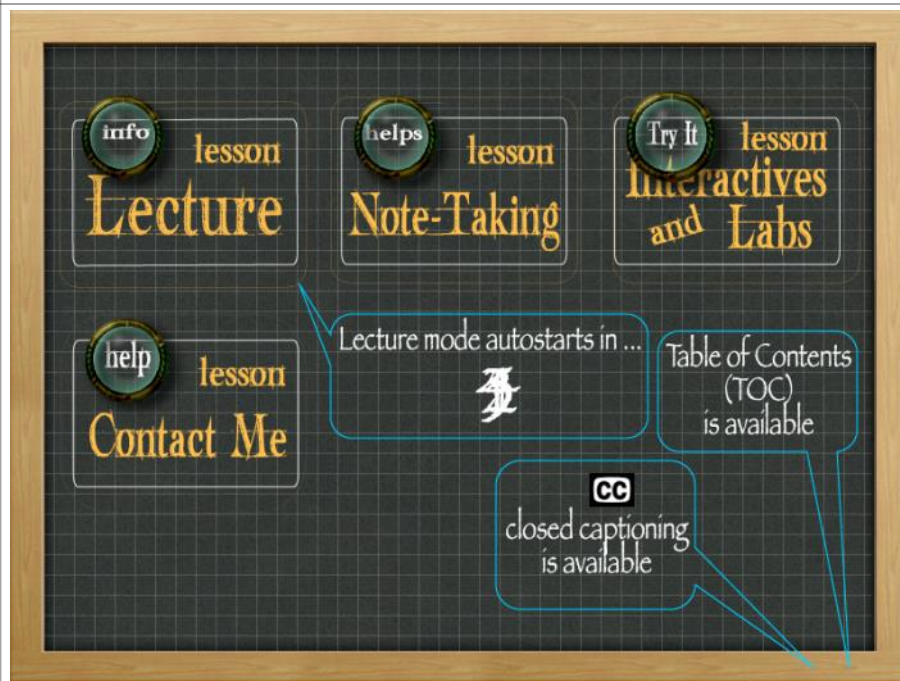


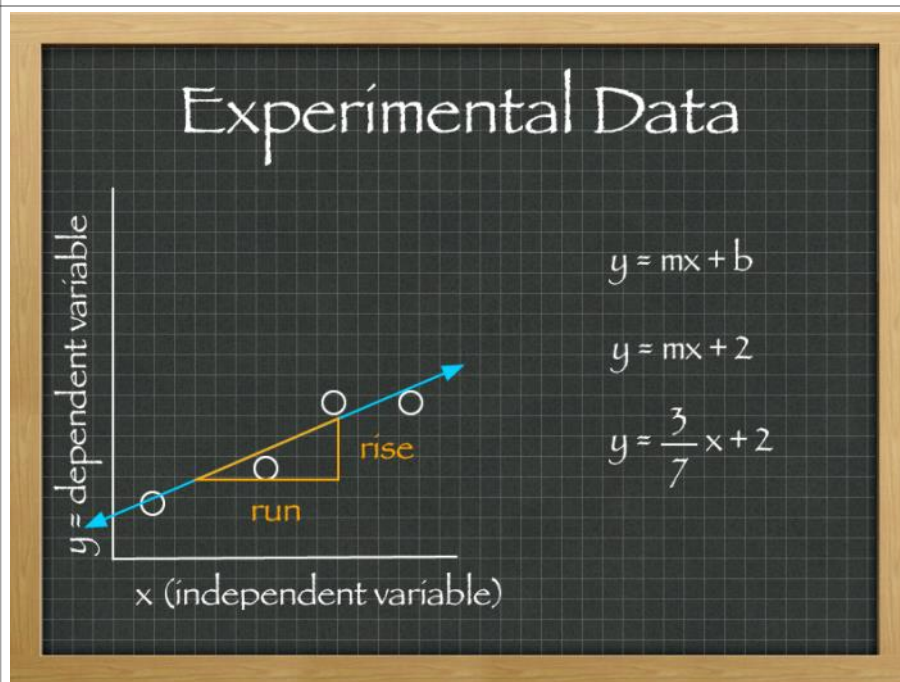
Experimental Data

Thursday, January 19, 2012
5:14 PM

Slides



Notes



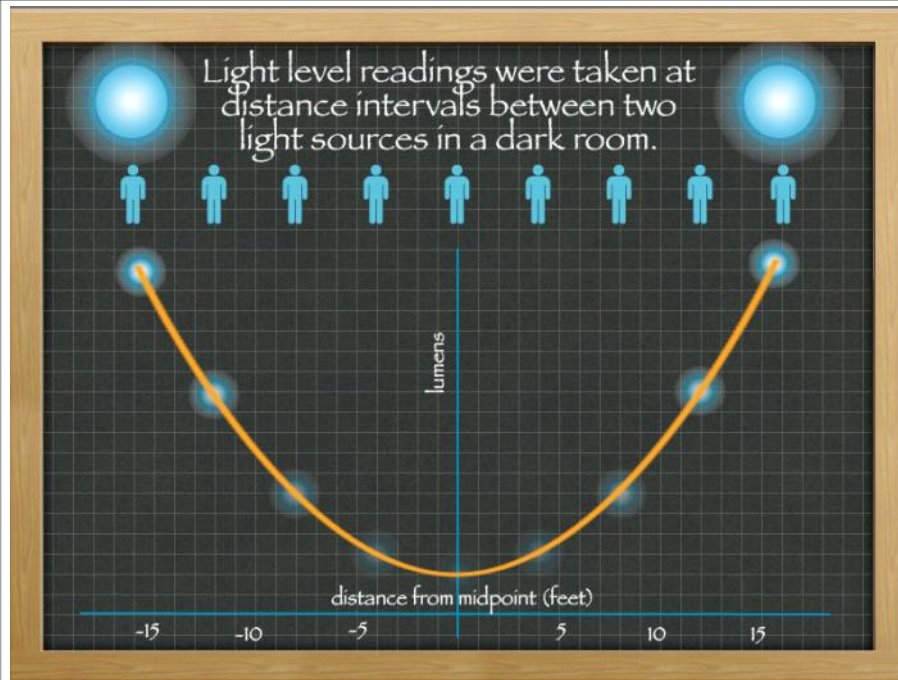
Most of the equations in science have been created by starting out with experimental data. The x-axis will be for the independent variable. Often this will be time, but not always.

The y-axis will be the dependent variable. It will be the one that changes in response to the changes in the independent variable.

This data can be plotted and examined for what type of a relationship there may be between the experimental variables. If the data points form a line, it will be a linear relationship.

Data points are messy things though. Seldom will experimental data be right on a line, but they will generally be close enough to get a good slope.

From this data, we can create an equation.



Try It

Click on the relationship seen with the light readings on the last slide.

- linear proportional $y = kx$
- linear non-proportional $y = mx + b$
- inverse variation $y = \frac{k}{x}$
- quadratic $y = x^2$
- cubic x^3
- absolute value
- exponential $y = a^x$

Congratulations!
You have completed
this topic

Give us feedback about
this lesson if you wish...

