

Types of Relationships

Linear-spring = mass vs. Stretch

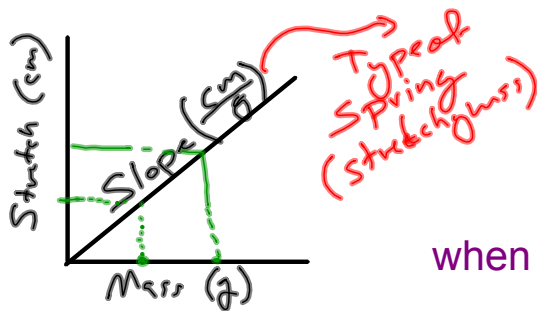
Quadratic-Pendulum = length vs. Period

Inverse-Paragraph = height vs Width

Horizontal-Pendulum = Angle VS Period

Mass vs Period

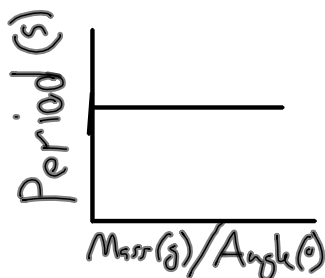
Linear - Spring Lab = Stretch of Spring
vs
mass

$$y = mx + b$$


when $x \rightarrow X, y \rightarrow Y$
and when $x \rightarrow \cancel{x}, y \rightarrow \cancel{y}$

when the mass is doubled,
the stretch is also doubled.

Horizontal - Pendulum - mass vs Period
Angle + Period

$$y = b \rightarrow b \text{ is a constant}$$


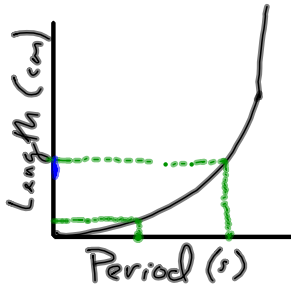
$P = \text{time}$

if the mass / angle is doubled, the
time stays the same.

Quadratic - Pendulum - length vs time Period

$$y = ax^2$$

when $x \rightarrow X, y \rightarrow y$
and when $x \rightarrow X, y \rightarrow y$

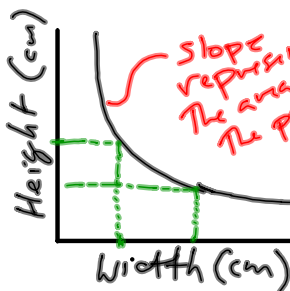


if the period is doubled then the length will be quadrupled

Inverse - Paragraph: height vs. width

$$y = \frac{a}{x}$$

when $x \rightarrow X, y \rightarrow y$
and when $x \rightarrow X, y \rightarrow y$



Slope represents
The area of
The paragraph

if you double the width,
the height will decrease by half.