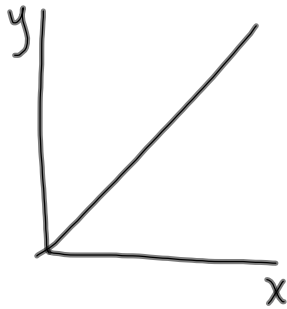


Graphical Analysis of Curved Data

Linear Graph



When you have a linear graph and the y-intercept is zero:

$$y \propto x$$

$$y = kx$$

$$(y = mx + b)$$

Power Curve



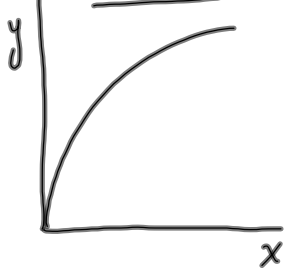
$$y \propto x^n$$

$$y = kx^n$$

$$(y = mx + b)$$

A graph of  $y$  vs  $x^n$  will be linear with a slope of  $k$  and a y-intercept of zero

Root Curve



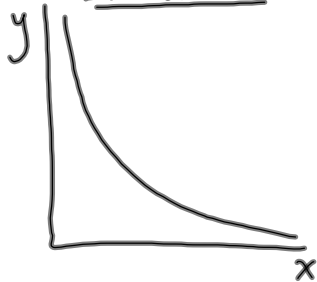
$$y \propto \sqrt[n]{x}$$

$$y = k\sqrt[n]{x}$$

$$(y = mx + b)$$

A graph of  $y$  vs  $\sqrt[n]{x}$  will be linear with a slope of  $k$  and a y-intercept of zero.

Inverse Curve



$$y \propto \frac{1}{x^n}$$

$$y = k\left(\frac{1}{x^n}\right)$$

$$(y = mx + b)$$

A graph of  $y$  vs  $\frac{1}{x^n}$  will be linear with a slope of  $k$  and y-intercept of zero