

Graphical Analysis of Data

Linear Graph



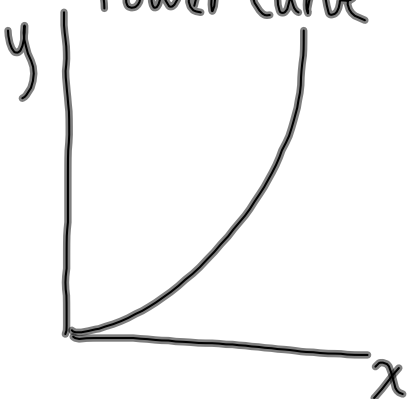
$$y \propto x$$

$$y = kx$$

$$(y = mx + b)$$

The slope is k and the y -intercept is zero.

Power Curve

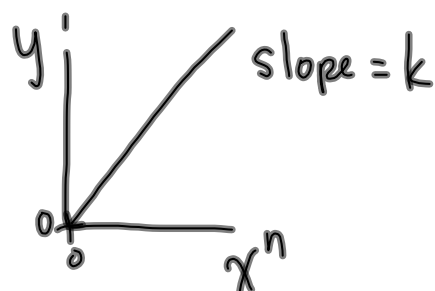


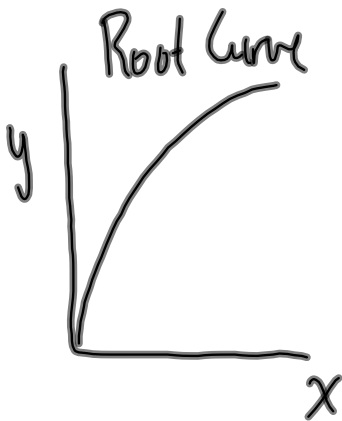
$$y \propto x^n$$

$$y = kx^n$$

$$(y = mx + b)$$

A plot of y vs x^n will be linear with a slope of k and a y -int of zero.



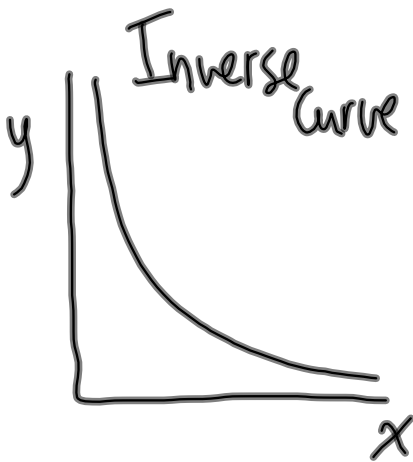


$$y \propto \sqrt[n]{x}$$

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

$$(y = m x + b)$$

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



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

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

$$(y = m x + b)$$

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