

$$y \propto x^n$$

$$y = kx^n$$

linear  $\Rightarrow n = 1$   
 power curve  $\Rightarrow n > 1$   
 root curve  $\Rightarrow 0 < n < 1$   
 inverse curve  $\Rightarrow n < 0$

$$\log y = \log(kx^n)$$

$$\log y = \log k + \log x^n$$

$$\log y = \log k + n \log x$$

$$y = b + mx$$

If you plot  $\log y$  vs  $\log x$ , you will get a linear graph with a slope of  $n$  and a  $y$ -intercept of  $\log k$ .

