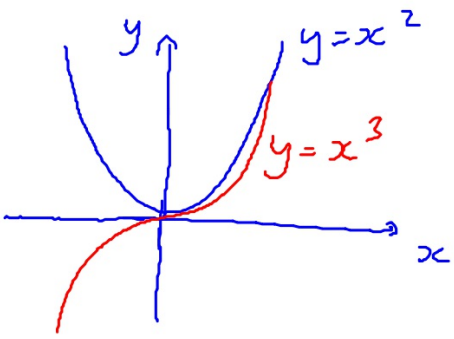
Logarithms

Ex 12.2 Q4

- $\log_a xy = \log_a x + \log_a y$
- $\log_a \frac{x}{y} = \log_a x - \log_a y$
- $\log_a x^n = n \log_a x$

Log graphs

$$y = a x^n$$

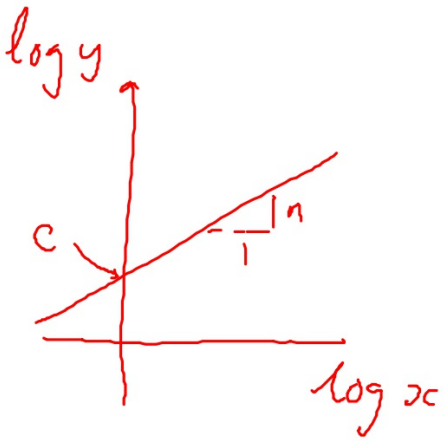


$$\log y = \log a x^n$$

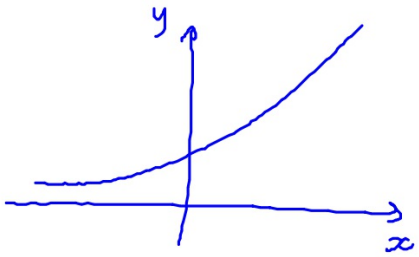
$$\log y = \log a + \log x^n$$

$$\underbrace{\log y}_{Y} = \underbrace{n \log x}_{nX} + \underbrace{\log a}_{C}$$

$$Y = nX + C$$



$$y = k a^x$$



$$\log y = \log k a^x$$

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

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

$$\log y = \log a \times x + \log k$$

$$Y = m x + C$$