

Rules of exponents

1. Evaluate

a, $16^{\frac{1}{2}}$

b, $8^{-\frac{2}{3}}$

c, π^0

d, $64^{\frac{1}{6}}$

e, $16^{\frac{3}{4}}$

2. Evaluate

$$a, \frac{5x_1^2 x_2^6}{5x_1^5 x_2^1}$$

$$b, \frac{x^t y^2}{x^{t-1} y^p}$$

$$c, \frac{AK^{0.4} L^{0.2}}{K^{0.1} L^{-0.4}}$$

Equations and graphs

3. Graph the following

a, $y = x^3 + 1$

b, $y = -x^2$

c, $y = -2x$

Natural logarithmic functions

4. Solve

$$a, e^x = 9$$

$$b, 2^x = 17$$

$$c, 1 + \ln x = 29$$

5, Give the economic interpretation of the intercepts and slopes of the following functions

a, $Q_s = -c + dp$ (supply function)

b, $Q_d = a - bp$ (demand function)

Where

Q_s and Q_d are quantities

supplied and demanded,

respectively.

p is the price