

1) Estimate the following slope

$$\log(y) = 3.2 + 1.87x$$

Interpretation of 1.87: For one unit of increase in x , on average, y increases by a factor of $e^{1.87} = 6.49$. That is, on average, y increases by 549% for one unit of increase in x .

2) We want to estimate the value of y when $x = 3.2$.

$$\ln(y) = 3.2 + 1.87(x)$$

$$\ln(y) = 3.2 + 1.87(3.2)$$

$$\ln(y) = 9.81$$

$$y = e^{9.81}$$

$$y = 18214.98$$