

$$t = 0, 1, \dots, 15$$

$$\Delta A(t) = 50 \exp(0.122 \cdot t)$$

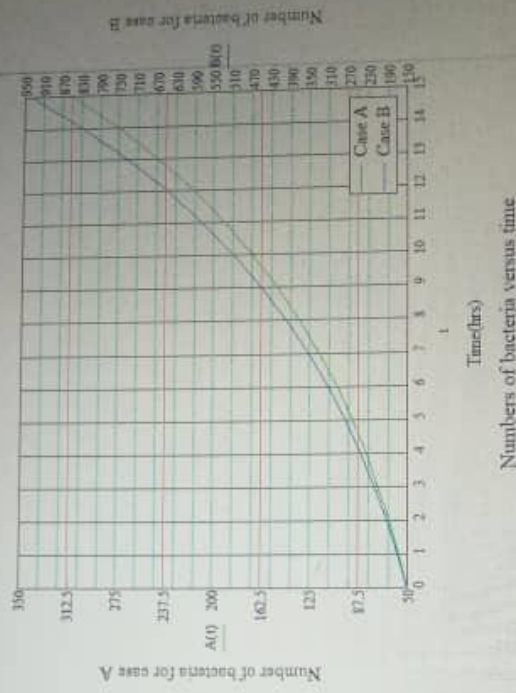
$$A(0) =$$

50
56.488
63.817
72.098
81.453
92.022
103.962
117.451
132.691
149.908
169.359
191.234
216.161
244.209
275.896
311.694

$$B(t) = 150 \exp(0.122 \cdot t)$$

$$B(0) =$$

150
169.463
191.452
216.293
244.358
276.065
311.805
352.394
398.073
449.725
508.078
574.003
648.483
732.626
827.687
935.083



Aljabar eksponen dan logaritma

18/ENCS02/020

COMPUTER ENGINEERING

ENCS282 Assignment 4

$$y = y_0 e^{kt}$$

$$y = 3y_0 \quad \text{at } t = 9$$

$$A \quad \frac{y}{y_0} = e^{kt} = 3 \quad \text{at } t = 9$$

$$B \quad \frac{y}{y_0} = e^{kt} = 9 \quad \text{at } t = 18$$

$$y_0 = 50 \quad \dots (i)$$

$$y_0 = 150 \quad \dots (ii)$$

$$y = 50 e^{kt} \quad \dots (iii)$$

$$y = 150 e^{kt} \quad \dots (iv)$$

$$A \quad 3 = e^{9k}$$

$$\ln 3 = 9k$$

$$k = \frac{\ln 3}{9}$$

$$k = 0.122$$

$$9 = e^{kt}$$

$$\ln 9 = 18k$$

$$k = \frac{\ln 9}{18}$$

$$k = 0.122$$

$$y = 50 e^{0.122t}$$

$$y = 150 e^{0.122t}$$