

Chakri Sneeneth

181EN0061818, Mechanical,

Case  $\rightarrow$

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

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

$$\text{Case} \rightarrow e^{kt} = 3$$

$$\text{at } t=9$$

$$e^{9k} = 3$$

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

$$k = 0.122$$

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

$$\text{Case 2} \rightarrow y = 150 e^{0.122t}$$

$$t = 0, 1, 15$$

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

$$A(t) =$$

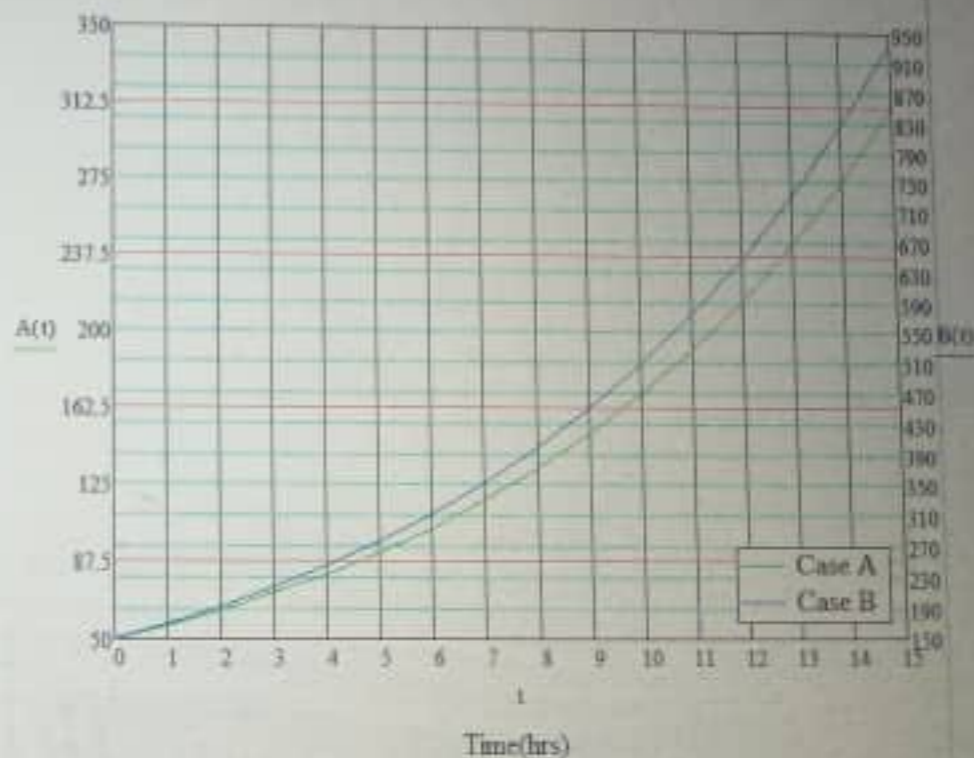
50
56.488
63.817
72.098
81.453
92.022
103.962
117.451
132.691
149.908
169.359
191.334
216.161
244.209
275.896
311.694

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

$$B(t) =$$

150
169.463
191.452
216.293
244.358
276.065
311.885
352.354
398.073
449.725
508.078
574.003
648.483
732.626
827.687
935.083

Number of bacteria for case A



Numbers of bacteria versus time