

AKINWANDE SIMISOLA
 SIGNO 1012
 CIVIL ENGINEERING

$\ln 9 = k$
 $\frac{18}{k} = 0.122$

$y = y_0 e^{kt}$
 $y = 3y_0 \rightarrow 3$
 $\frac{y}{y_0} = 3$
 $\frac{y_0}{y_0} = e^{kt} = 3$
 $1 = e^{kt}$
 At $t = 9$
 At $t = 18$
 $\frac{y}{y_0} = e^{kt} = 9$
 $\frac{y}{y_0}$

~~Let~~ $y_0 = 50$ - (1)
 $y_0 = 150$ - (2)
 $y = 50e^{kt}$
 $y = 150e^{kt}$
 $\frac{y}{y_0} = 3e^{kt}$ $3 = e^{kt}$
 $\ln 3 = kt$
 $k = \frac{\ln 3}{t}$
 N.B $t = 9$
 $k = 0.122$

while
 $9 = e^{kt}$
 $\ln 9 = e^{kt}$

