

Pre-Calc Logistic Growth Model:

$$P = \frac{M}{1 + Ae^{-kt}}$$

M = carrying capacity (max)
K = growth constant
A = constant

Calculus:

$$\frac{dP}{dt} = KP \left(1 - \frac{P}{M}\right)$$

OR

$$\frac{dP}{dt} = KP(M - P)$$

