# Logistic Function

A Logistic function is modeled by the following derivative:

$$\frac{dP}{dt} = kP(1 - \frac{P}{m})$$

$k$ represents the maximum rate of growth as a percentage. Therefore, $kP$ will represent the absolute growth rate.

$m$ represents the maximum population size. Therefore, $\frac{P}{m}$ will approach 1 and the derivative will approach 0 as we approach carrying capacity.