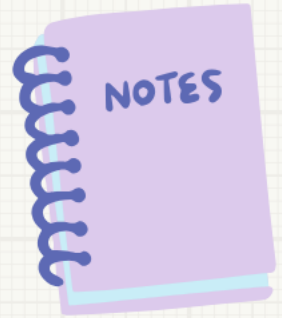
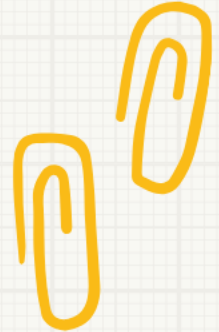
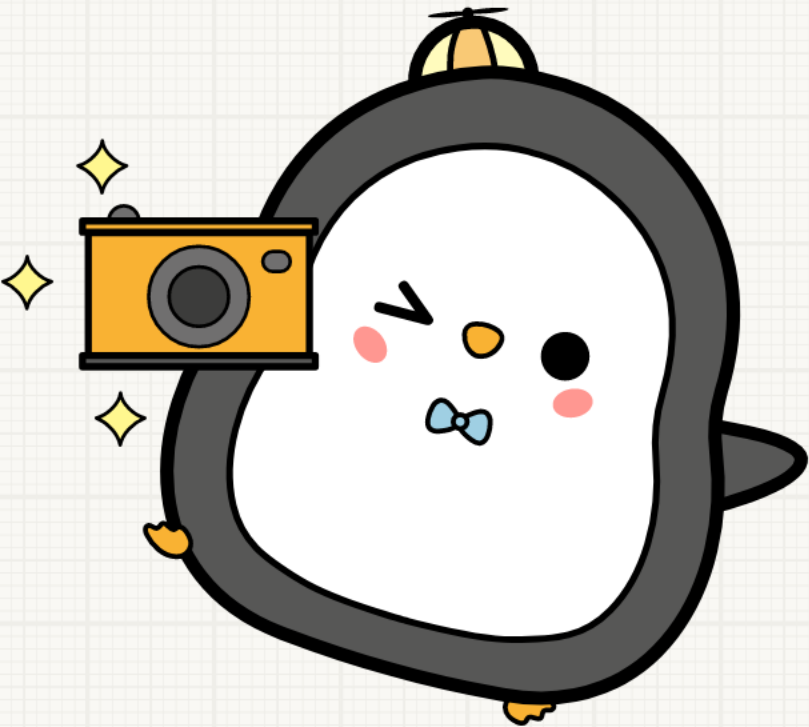


AP Bio Math Mondays

Rate and Growth:
Population Growth



Population Growth



$$\frac{dN}{dt} = B - D$$

Math Monday #3

Population Growth

In 2020, a population of penguins had 40 births and 20 deaths. Determine the population growth in 2020.

Population Growth



$$\frac{dN}{dt} = B - D$$

B = birth rate
D = death rate

$$\frac{dN}{dt} = 40 - 20$$

$$\frac{dN}{dt} = 20$$

Example Problem

There are 2,000 mice living in a field. If 1000 mice are born each month and 200 mice die each month, what is the per capita growth rate over a month? Round to the nearest tenth.

Population Growth



$$\frac{dN}{dt} = B - D$$

B = birth rate
D = death rate

Population Growth

$$\frac{dN}{dt} = \frac{1000}{2000} - \frac{200}{2000}$$

$$\frac{dN}{dt} = \frac{800}{2000}$$

$$\frac{dN}{dt} = 0.4$$