M&M Madness

Name:

February 13, 2013

1 Background

1. Write the slope-intercept form of a linear equation.

   What do each of the variables represent?

2. Write the standard form of an exponential equation.

   What do each of the variables represent?

2 Graph

On the calculator, graph the following equations:

$$y = ax + b$$

$$y = a(b^x)$$

with different numbers for a and b. Write down any observations you make.

3 Activity

(a.) Count and record initial amount of M&Ms

(b.) Pour M&Ms out of the bag onto the plate.

(c.) Remove all of the M&Ms of one color.

(d.) Record the number of remaining M&Ms.

(e.) Repeat from (b.) until there are no M&Ms left.

(f.) Graph the results.

Can you say anything about this function? Can you find an equation that matches the data?

(a.) Count and record initial amount of M&Ms

(b.) Pour M&Ms out of the bag onto the plate.

(c.) Remove all of the M&Ms with "m" facing down.

(d.) Record the number of remaining M&Ms.

(e.) Repeat from (b.) until less than 10 M&Ms are left.

(f.) Graph the results.

Can you say anything about this function? Can you find an equation that matches the data?

Why was the first experiment linear and the second experiment exponential?

Come up with your own examples of a situation that can be modeled by a linear or exponential function.