

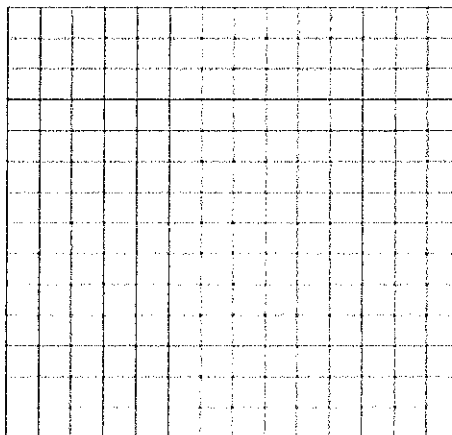
## Exploring Exponential Growth and Decay

### Growth

Uh Oh! Zombies have invaded Henry Clay. Ms. Tallent was infected and came to algebra 2 class. She made one student a zombie. Every 10 minutes each zombie tried to "make a zombie friend". How many zombies do we have at the end of class?



stage	# zombies
0	
1	
2	
3	
4	
5	
6	



Write an equation that determines the number of zombies.

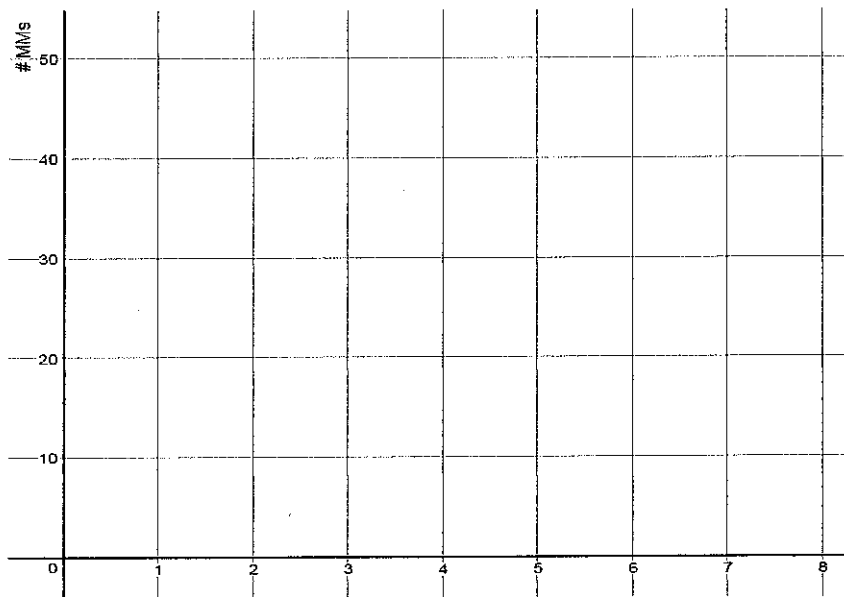
How many zombies will there be 20 minutes in to second hour?

If there are 2400 students and teachers at Henry Clay, during what period will they all become zombies?

## Decay

1. Start this experiment with one cupful of M&M's. Shake the cup and pour the M&M's onto the napkin. Count the total number of M&M's. Write this number for trial #1. Then remove all the M&M's that have the M showing. Record the number of M&M's remaining on the plate in the table below for trial #2 (not how many you removed).
2. Repeat the above procedure at least five more times. If the number of M&M's reaches zero at any trial, the experiment is over at that time and you should not use the zero as a part of your data.

Trial	Number of M&Ms
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	



trial number

Find the equation to represent your data.