Name: _____   Date: _____
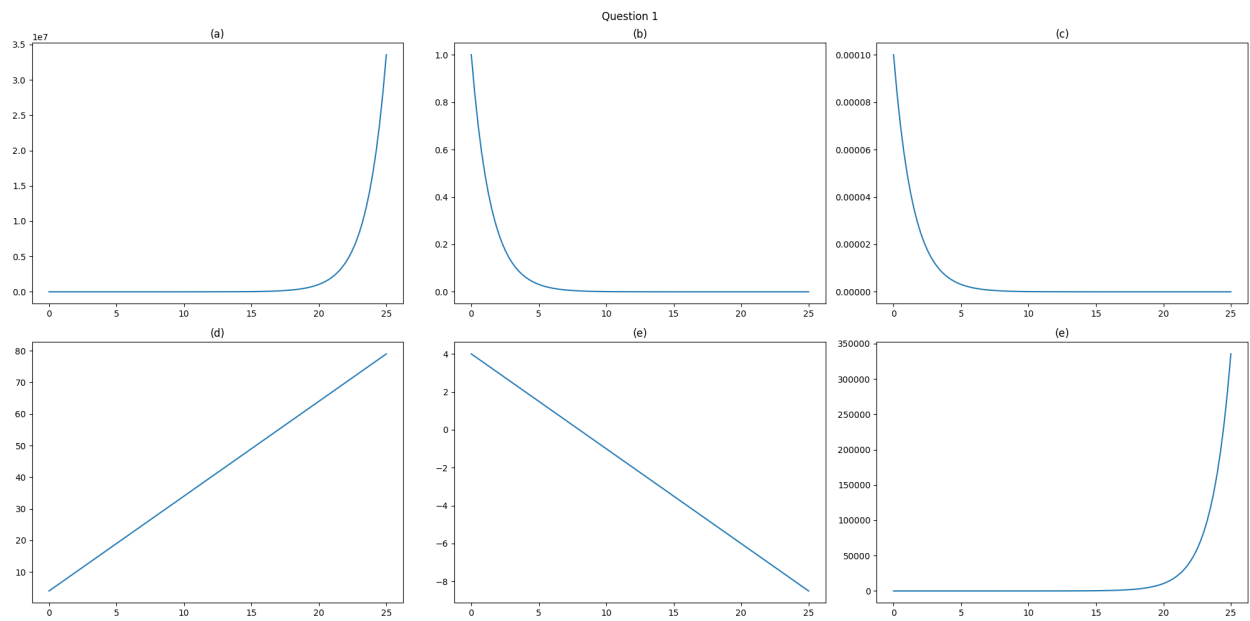
Class: _____   Teacher: _____

Math Mini Quiz 5

This Mini Quiz, we're going to explore the math concepts that you've learned so far in this unit. This assignment should take you about **20 minutes**.

1) Mark each of the following situations as exponential decay (ED), exponential growth (EG), or linear (L). Justify your answer.

a)

b)

c)

d)

e)

f)

(yes, there's a back, don't forget it)

You're taking a shower and you realize you have a mold problem. The mold currently covers one whole tile of your shower.

You do some research and you learn that each mold spore releases 2 new ones when it dies, that's to say *each mold spore turns into two*. This cycle happens once every day.

You realize one whole tile is covered in mold.

2) Write a function *M(d)* to represent the number of tiles covered with mold after **d** days.

3) Graph your function on the plot below.

4) Is this model exponential decay (ED), exponential growth (EG), or linear (L)? How do you know?

5) If you have 100 bath tiles in the shower, how long will it take for the whole shower to be covered?

The end, good job :)