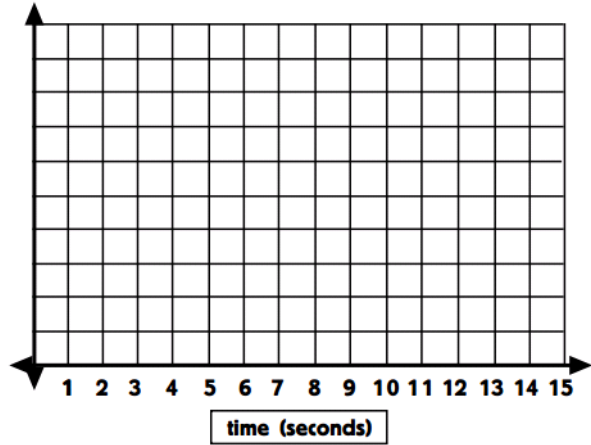


**Example 1 - Bacteria Growth**

The video shows bacteria doubling every second. Create a table for the number of bacteria versus time.

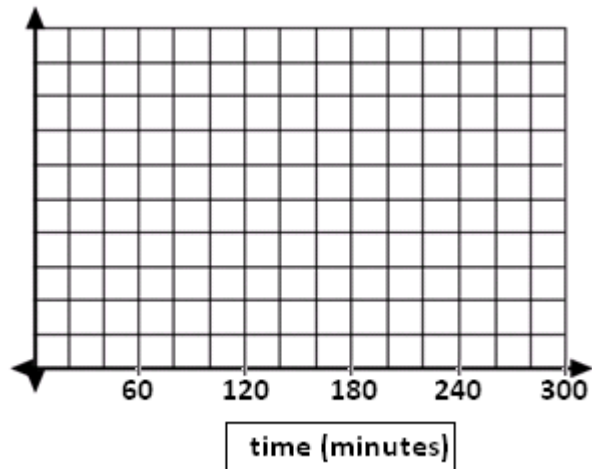
*High-Speed*

Time (sec)	# of Bacteria



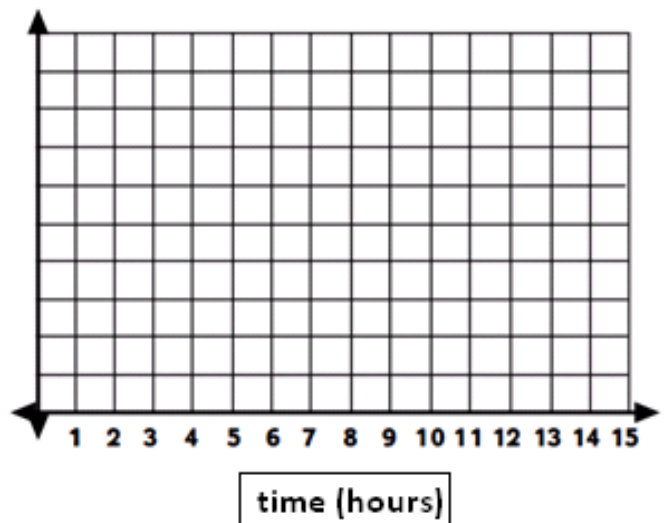
*Real-Time: 1sec = 20min*

Time (min)	# of Bacteria



*Real-Time: 60min = 1hr*

Time (hr)	# of Bacteria



## Key Ideas for Linear, Quadratic, & Exponential Graphs

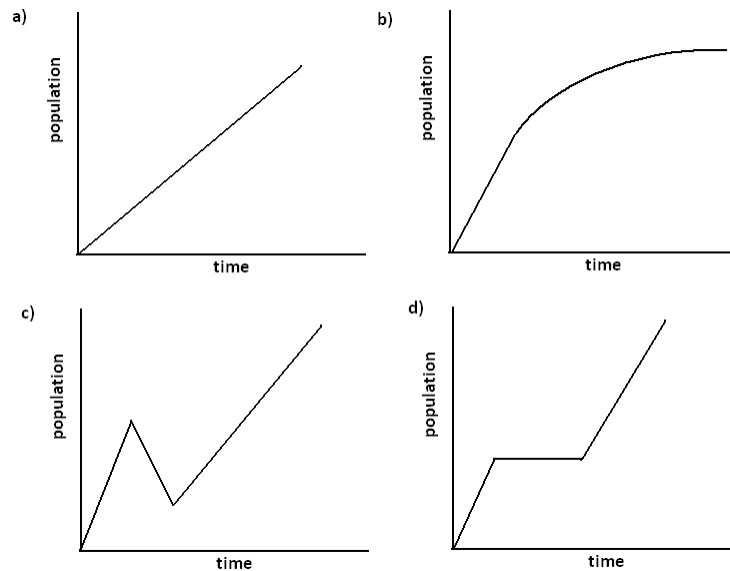
	Linear	Quadratic	Exponential
Shape			
Patterns in the Tables			

**Example 2** - Below are three stories about the population of a city over a period of time and four population-versus-time graphs. Two of the stories each correspond to a graph. Match the two graphs and the two stories.

Story 1: The population size grows at a constant rate for some time, then doesn't change for a while, and then grows at a constant rate once again.

Story 2: The population size grows somewhat fast at first, and then the rate of growth slows.

Story 3: The population size declines to zero.



Write stories for the two other graphs. Create a graph for the 3<sup>rd</sup> story.