**Populations: Logistic vs Exponential Growth**

The graphs below represent two different types of population growth. Use the graphs to answer the questions that follow.

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 Graph 1 Graph 2

1. On the blank lines above the graphs, give each graph a **title** based on the type of population growth it shows.
2. On each graph, what does the horizontal axis represent?
3. What does the vertical graph represent?
4. **Label** the vertical and horizontal axes on each graph.
5. On graph 2, what does the dotted line represent?
6. Describe what is happening to the population in Graph 1.

**Logistic vs Exponential Population Growth**

Each of the statements below refers to exponential population growth or logistic population growth. In the blank next to each statement, place an “E” if the statement refers to exponential growth and an “L” if the statement refers to logistic growth.

|  |  |
| --- | --- |
| 1. \_\_\_\_\_\_
 | A lack of food prevents a certain population from growing any further. |
| 1. \_\_\_\_\_\_
 | In the steady state, the average growth rate is zero. |
| 1. \_\_\_\_\_\_
 | The larger the population gets, the faster it grows. |
| 1. \_\_\_\_\_\_
 | One pair of elephants could produce 19 million offspring in less than 750 years. |
| 1. \_\_\_\_\_\_
 | A particular environment is limited to a certain number of rabbits that it can support. |
| 1. \_\_\_\_\_\_
 | All of the offspring of a given population survive and reproduce. |
| 1. \_\_\_\_\_\_
 | The size of an ant colony stays steady around 1000 individuals. |
| 1. \_\_\_\_\_\_
 | Bacteria can reach a population size of 1 billion in less than 10 hours if there are no restrictions. |