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| **Graph 1**: Rabbits Over Time1. The graph shows a \_\_\_\_\_\_\_\_\_\_ growth curve.
2. The carrying capacity for rabbits is \_\_\_\_\_\_
3. During which month were the rabbits in exponential growth?
 | graph_rabbits |
| **Graph 2:** Average Toe Length1. In 1800, about how many people surveyed had a 3 cm toe?\_\_\_\_\_\_\_
2. How many in 2000? \_\_\_\_\_\_\_
3. The data shows the \_\_\_\_\_\_\_\_\_\_\_ selection has occurred?
4. In 2000, what is the average toe length? \_\_\_\_\_\_
5. What is the average toe length in 1800 \_\_\_\_\_\_\_
 | graph_stabilizing_selection |
| **Graph 3:** Mexico and US1. In Mexico, what percentage of the population is between 0-4 years of age? \_\_\_\_\_\_\_
2. In the US? \_\_\_\_\_\_
3. Which population is growing the fastest? \_\_\_\_\_\_\_\_
4. Which age group has the smallest number in both countries? \_\_\_\_\_
 | population_pyramid4 |

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| **Chart 4:** Trapping GeeseIn order to estimate the population of geese in Northern Wisconsin, ecologists marked 10 geese and then released them back into the population. Over a 6 year period, geese were trapped and their numbers recorded. 1. Use the formula to calculate the estimated number of geese in the area studied? \_\_\_\_\_\_\_\_\_\_\_\_\_
2. This technique is called \_\_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_
3. Supposing more of the geese found in the trap had the mark, would the estimated number of geese in the area be greater or lesser? \_\_\_\_\_
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| Year | Geese Trapped | Number with Mark |
| 1980 | 10 | 1 |
| 1981 | 15 | 1 |
| 1982 | 12 | 1 |
| 1983 | 8 | 0 |
| 1984 | 5 | 2 |
| 1985 | 10 | 1 |

mark_recapture_formula |
| **Chart 5:** Mushroom PlotsAnother ecologist uses a different method to estimate the number of mushrooms in a forest. She plots a 10x10 area and randomly chooses 5 spots, where she counts the number of mushrooms in the plots and records them on the grid. 1. Calculate the number of mushrooms in the forest based on the grid data: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. This technique is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | grid_mushrooms_sample |

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| **Chart 6:** Snakes & MiceThe data shows populations of snake and mice found in an experimental field. 1. During which year was the mouse population at zero population growth? \_\_\_\_\_\_
2. What is the carrying capacity for snakes ? \_\_\_\_\_\_
3. What is the carrying capacity for mice? \_\_\_\_\_
4. What is the rate of growth (r) for mice during 1970? \_\_\_\_\_ During 1980? \_\_\_\_\_\_
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| Year | Snakes | Mice born | Mice died |
| 1960 | 2 | 1000 | 200 |
| 1970 | 10 | 800 | 300 |
| 1980 | 30 | 400 | 500 |
| 1990 | 15 | 600 | 550 |
| 2000 | 14 | 620 | 600 |
| 2001 | 15 | 640 | 580 |

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