**Chapter 1 Review**

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| **Time (days)** | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 |
| **Species 1** | 2 | 9 | 16 | 95 | 245 | 259 | 260 | 260 | 260 |
| **Species 2** | 3 | 4 | 8 | 34 | 97 | 165 | 215 | 260 | 300 |

Construct a line graph using the following data. You will do two lines on one graph.

1. For the first 40 days, what type of growth do both species exhibit (exponential or logistic)? How do you know?
2. After minute 40, what seems to happen to Species 1? How does this compare with Species 2? Use the terms Exponential and Logistic in your answer.
3. For species 1, does there appear to be a carrying capacity (K)? If so, what is it? How do you know?
4. For species 2, what do you expect to happen in the future as far as the species growth? How do you know this will happen?
5. How does the rate of growth compare for the two species?
6. What is the purpose of the scientific method?
7. What are the two types of observations? Give one example of each.
8. Why is the observation: “There is A cloud in the sky” have a degree of ambiguity (uncertainty) about what type of observation it is? What type do YOU think it is? Why do you think so?
9. How do you turn something from an observation into a hypothesis? What is a hypothesis?
10. In an experiment there are controls and variables. What are they?
11. What are dependent and independent variables? How do they differ?
12. Why is it important to perform multiple trials in an experiment?
13. What are two major differences between a theory and a law?
14. Mr. Lockett’s class is the best class ever. Is this a theory or a law? How do you know?
15. List, in order from largest to smallest, the metric units. What do each of the base units (meter, liter, gram) measure?
16. Convert the following into centimeters: 45.0 dam, 2400 mm, 0.00043 hm, 0.004909 km, 245.09 m
17. Convert the following: 84.00 hm = \_\_\_\_\_ cm? 8709.9 mL = \_\_\_\_ kL? 9.0x105 mg = \_\_\_\_\_ dg?
18. Karen ran at a speed of 30 miles per hour. What is her speed in meters per second? (1 mile = 1600 meters).
19. Jason ran a 13.1 mile race in 1.5 hours. What is his speed in: miles per hour? Feet per hour? Meters per second? (1 mile = 5280 feet)
20. The density of gold is 45.5 g/mL. What is this in cg/daL?
21. Convert the following into scientific notation: 0.00000456, 0.000983, 90, 87000900, 0.02, 83.09
22. Convert the following into their original numbers: 1.4x104, 9.8x10-4, 2.5x10-6, 1.394x102
23. How many significant figures do the following have: 45.6, 1001.3, 469000, .040, 3.000
24. Convert the following into 2 significant figures: 24.5, 25.00, 3400000000, 0.00004394, 7
25. Two balls had densities of 89.04 g/mL and 92.3 g/mL respectively. In the correct number of significant figures, what is the mass of BOTH balls together?
26. Kevin punted a football 87.40 feet, and it took 5.7 seconds to hit the ground. In the correct number of significant figures, what is the rate at which the ball was travelling, in feet per second.