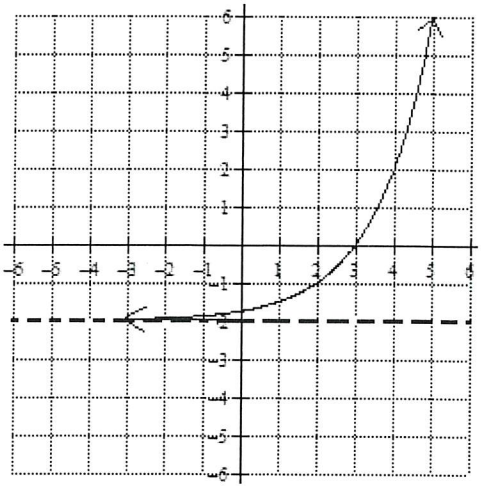
Name_____ Date_____ Period_____

Day #53 Homework

The graph of an exponential function of the form $g(x) = a \cdot b^x + c$ is graphed to the right. Use the graph to answer the following questions.



1. Is $g(x)$ an exponential growth or decay function? Give a reason for your answer.

2. Describe the left and right end behavior of the function, using the terms bounded or unbounded.

3. Identify the domain and range of the function.

4. What is the equation of the horizontal asymptote?

5. What can be concluded about the value of a in the equation of $g(x)$? Give a reason for your answer.

6. What can be concluded about the value of b in the equation of $g(x)$? Give a reason for your answer.

7. What can be concluded about the value of c in the equation of $g(x)$? Give a reason for your answer.

x	−9	−5	−1	1	3	5	9
$G(x)$	−510	−30	0	1.5	1.875	1.969	1.998

The table of values for an exponential function of the form $G(x) = a \cdot b^x + c$ is shown above. Use the graph to answer the following questions.

8. Is $G(x)$ an exponential growth or decay function? Give a reason for your answer.

9. Describe the left and right end behavior of the function, using the terms bounded or unbounded.

10. Identify the domain and range of the function.

11. What is the equation of the horizontal asymptote? Give a numerical reason for your answer.

12. What can be concluded about the value of a in the equation of $G(x)$? Give a reason for your answer.

13. What can be concluded about the value of b in the equation of $G(x)$? Give a reason for your answer.

14. What can be concluded about the value of c in the equation of $G(x)$? Give a reason for your answer.