

Day #50 Homework

Graphed below are three exponential functions of the form $f(x) = a \cdot b^{-x} + c$. Provide the indicated information for each function. Provide explanation for your conclusions about the values of a , b , and c .

1. Growth or Decay Justification: _____

Left End Behavior _____

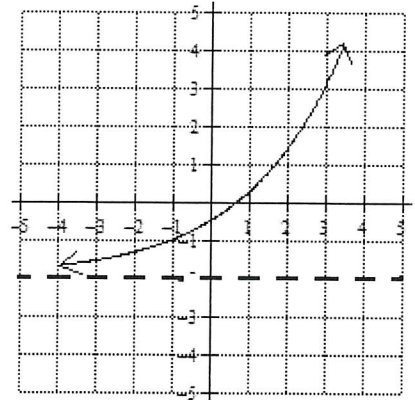
Right End Behavior _____

Equation of horizontal asymptote _____

a : _____

b : _____

c : _____



2. Growth or Decay Justification: _____

Left End Behavior _____

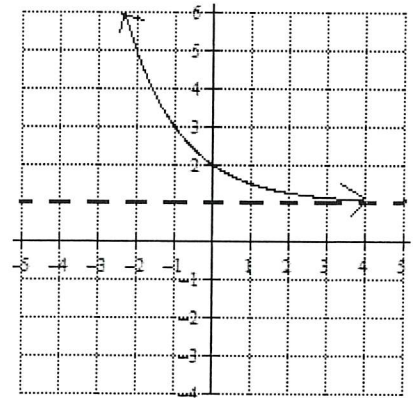
Right End Behavior _____

Equation of horizontal asymptote _____

a : _____

b : _____

c : _____



Equation	How many reflections does the graph undergo? Give reasons for your answer.	What is the value of b ? Is $b > 1$ or is $0 < b < 1$?	Is the function a growth or decay? Give reasons for your answer.	What is the equation of the horizontal asymptote? Does the graph lie above or below?
4. $g(x) = -(0.98)^{x+2} + 3$				
5. $f(x) = \left(\frac{2}{5}\right)^x - 2$				
6. $p(x) = -2^{-x+2}$				
7. $g(x) = -(0.0003)^{-x} + 5$				

Shown below is a table of values for an exponential function of the form $G(x) = a \cdot b^x + c$. Provide the indicated information for each function. Provide an explanation for your conclusions about the values of a , b , and c .

8.

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

Growth or Decay Justification:

Left End Behavior _____ Right End Behavior _____

Equation of horizontal asymptote _____

a : _____

b : _____

c : _____

Shown below is a table of values for an exponential function of the form $H(x) = a \cdot b^{-x} + c$. Provide the indicated information for each function. Provide an explanation for your conclusions about the values of a , b , and c .

9.

x	-7	-4	-1	2	5	8	11
$H(x)$	-125	-13	1	2.75	2.969	2.996	2.999

Growth or Decay Justification:

Left End Behavior _____ Right End Behavior _____

Equation of horizontal asymptote _____

a : _____

b : _____

c : _____