Algebra 2 with Support
REVIEW Exponential Functions Test C: Exponential Applications
Spring 2017

Coach Sarsing

Name _____ Date: _____ Class: _____

Multiple Choice. Choose the best answer.

_____ 1. Is the following exponential function **growth or decay?** $f(x) = \frac{1}{5}^{x-1} + 3$

A. growth B. decay

_____ 2. Is the following exponential function **growth or decay?** $f(x) = 2(\frac{1}{2})^{x+3} - 1$

A. growth B. decay

_____ 3. Is the following exponential function **growth or decay?** $f(x) = (\frac{7}{2})^{x+2} - 4$

A. growth B. decay

_____ 4. Is the following exponential function **growth or decay?** $f(x) = 0.34^{x-1} + 3$

A. growth B. decay

_____ 5. What is the horizontal asymptote of the function $f(x) = -(2)^{x-3} + 7$?

A. y = 7 B. y = - 2 C. y = 2 D. y = -7

_____ 6. What is the domain of the function $f(x) = -3^{x+2} - 4$?

A. $(-\infty, -3)$ B. $(-4, +\infty)$ C. $(-\infty, +\infty)$ D. $(-4, +\infty)$

B 7. What is the range of the function $f(x) = (2)^{x+2} + 1$?

A. $(-\infty, 1)$ (B) $(1, +\infty)$ C. $(-\infty, +\infty)$ D. $(2, +\infty)$

_____ 8. What is the range of the function $f(x) = -\left(\frac{1}{2}\right)^{x+2} - 5$?

A. $(-\infty, -5)$ B. $(-2, +\infty)$ C. $(-\infty, +\infty)$ D. $(5, +\infty)$

Describe all transformations.

9. $f(x) = -(2)^{x+4}$

_____

_____

10. $f(x) = (3)^{x-7} - 8$

down 8

right 7

11. $f(x) = -\left(\frac{1}{2}\right)^{x} + 8$

_____

_____

12. $f(x) = -\left(\frac{2}{5}\right)^{x-9}$

flip,

_____

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