Test Review

Monday, September 23, 2019 7:46 AM

$\left(x^{-2}x^{-3}\right)^4$ $\frac{y^4x^2}{y^4x^3}$ $\frac{2x^4y^{-4}z^{-3}}{3x^2y^{-3}z^4}$

14 total Questions, some are multiple choice.

Write each radical using rational exponents.

$\sqrt{u}$ $\sqrt[4]{y}$ $\sqrt[3]{p^5}$

14 total Questions, some are multiple choice.

Solve for x in the following equations.

$5^{9x-4} = 5^{3x+2}$ $4^{5x+6} = 64$

14 total Questions, some are multiple choice.

Which of the following is not exponential.

x	0	1	2	3	4
y	3	7.5	18.75	46.875	117.1875

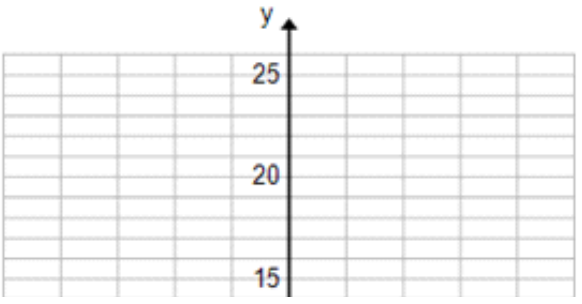
x	0	1	2	3	4
y	32	16	8	4	2

x	0	1	2	3	4
y	2	3	4	5	6

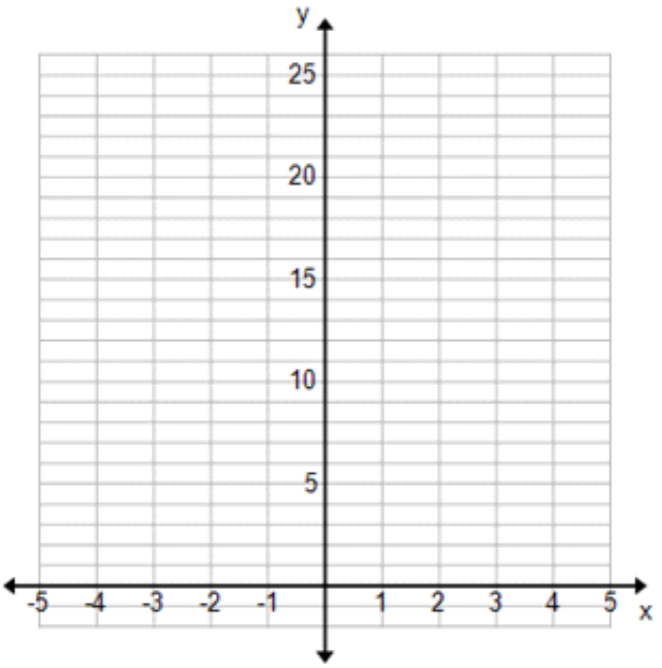
x	0	1	2	3	4
y	4	6	9	13.5	20.25

14 total Questions, some are multiple choice.

Graph the function $f(x) = 3^x$ in the graph below. Label the asymptote and at least 3 points.



asymptote and at least 3 points.



14 total Questions, some are multiple choice.

Write the function given by the table.

x	0	1	2	3	4
y	3	7.5	18.75	46.875	117.1875

14 total Questions, some are multiple choice.

A marine biologist knows that there are approximately 50,000 orca whales left in the world. The population is decreasing at a rate of 3% per year. What is the exponential function that models the expected population of orcas?

14 total Questions, some are multiple choice.

If you invest $5,000 into a compounding interest account that compounds monthly with an annual interest of 4%, what will you have after 8 years?

$$A = P\left(1 + \frac{r}{n}\right)^{nt}$$

14 total Questions, some are multiple choice.

You are trying to get your math grade up. Since you started studying with friends and going to flex-time your test scores have gone up by 2.5% each time. If you initial test score was 67, write an exponential function that represents the situation and determine your test score after 5 tests.

14 total Questions, some are multiple choice.

What transformations are taking place when compared to the parent function? $f(x) = 6^{x-5} + 3$

14 total Questions, some are multiple choice.

What are the characteristics of the function $f(x) = \frac{1}{4}^{x} - 1$?

Increasing or Decreasing (Shape):

Domain:

Range:

Asymptote:

14 total Questions, some are multiple choice.