Task card 1 Graphing Exponential Functions

Find y when x = 4 for $y = 48(\frac{1}{2})^x$.

Task card 2 Graphing Exponential Functions

What is the horizontal asymptote of the graph of $y = 3(\frac{1}{2})^x - 8$?

Task card 3 Graphing Exponential Functions

Find the y-intercept of $y = 6(3)^x$.

Task card 4 Graphing Exponential Functions

Does $y = 4(4)^x - 4$ show exponential growth or exponential decay?

Task card 5 Graphing Exponential Functions

Write the equation of the exponential graph in the form $y = a(b)^x$.



Task card 6 Graphing Exponential Functions

Find y when x = -1 for $y = 8(2)^x$.

Task card 7 Graphing Exponential Functions

Find y when x = 2 for $y = 6(5)^x$.

Task card 8 Graphing Exponential Functions

What is the horizontal asymptote of the graph of $y = 2^x + 2$?

Task card 9 Graphing Exponential Functions

Find the y-intercept of $y = 5(3)^x$.

Task card 10 Graphing Exponential Functions

Does $y = \left(\frac{1}{2}\right)^x + 6$ show exponential growth or exponential decay?

Task card 11 Graphing Exponential Functions

Write the equation of the exponential graph in the form $y = a(b)^x$.



Task card 12 Graphing Exponential Functions

Find y when x = -2 for $y = 8(2)^x$.

Task card 13 Graphing Exponential Functions

Find y when x = -1 for $y = 16(4)^x - 7$.

Task card 14 Graphing Exponential Functions

What is the horizontal asymptote of the graph of $y = 2^x + 7$?

Task card 15 Graphing Exponential Functions

Write the range of $y = 2^x + 5$ as an inequality.

Task card 16 Graphing Exponential Functions

The graph of $y = (\frac{1}{3})^x$ is stretched vertically by a factor of 4 and then shifted 8 units down. Write the equation of the new graph.

Task card 17 Graphing Exponential Functions

Find y when x = 3 for $y = 4(2)^x + 8$.

Task card 18 Graphing Exponential Functions

Find y when x = 2 for $y = 4(3)^x$.

Task card 19 Graphing Exponential Functions

What is the horizontal asymptote of the graph of $y = 5(2)^x + 1$?

Task card 20 Graphing Exponential Functions

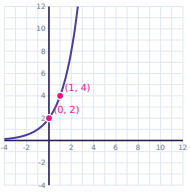
Find the y-intercept of $y = 4(\frac{1}{3})^x$.

Task card 21 Graphing Exponential Functions

Does $y = 3(\frac{1}{2})^x + 4$ show exponential growth or exponential decay?

Task card 22 Graphing Exponential Functions

Write the equation of the exponential graph in the form $y = a(b)^x$.



Task card 23 Graphing Exponential Functions

Find y when x = -2 for $y = 9(3)^x$.

Task card 24 Graphing Exponential Functions

Find y when x = 4 for $y = 243(\frac{1}{3})^x$.

Graphing Exponential Functions Task Cards

Recording sheet · Grade 9 · Write growth or decay as one word, an asymptote like y = 0 or y = 3, a range like y > 2, and an equation like y = 3(2)^x or y = 8(1/2)^x + 1. Write other answers as numbers. To graph a function, click three points on its curve on the grid.

Scan to check your answers

Name: _____ Date: _____

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Graphing Exponential Functions Task Cards: Answer Key

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The answers online

1. 3	**2.** y = -8	**3.** 6
4. growth	**5.** $y = 2(4)^x$	**6.** 4
7. 150	**8.** y = 2	**9.** 5
10. decay	**11.** $y = 5^x$	**12.** 2
13. -3	**14.** y = 7	**15.** y > 5
16. $y = 4(\frac{1}{3})^x - 8$	**17.** 40	**18.** 36
19. y = 1	**20.** 4	**21.** decay
22. $y = 2(2)^x$	**23.** 1	**24.** 3