Task card 1 Graphing Exponential Functions

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



Task card 2 Graphing Exponential Functions

Find y when x = -1 for $y = 8(4)^x + 1$.

Task card 3 Graphing Exponential Functions

What is the horizontal asymptote of the graph of $y = 6(\frac{1}{3})^x + 2$?

Task card 4 Graphing Exponential Functions

Write the range of $y = 4(2)^x - 2$ as an inequality.

Task card 5 Graphing Exponential Functions

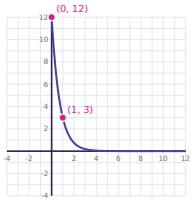
The graph of $y = (\frac{1}{3})^x$ is stretched vertically by a factor of 2 and then shifted 4 units up. Write the equation of the new graph.

Task card 6 Graphing Exponential Functions

Find y when x = 2 for $y = 4(2)^x - 7$.

Task card 7 Graphing Exponential Functions

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



Task card 8 Graphing Exponential Functions

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

Task card 9 Graphing Exponential Functions

What is the horizontal asymptote of the graph of $y = 3(5)^x - 2$?

Task card 10 Graphing Exponential Functions

Write the range of $y = 6(4)^x - 8$ as an inequality.

Task card 11 Graphing Exponential Functions

The graph of $y = (\frac{1}{3})^x$ is stretched vertically by a factor of 5 and then shifted 5 units up. Write the equation of the new graph.

Task card 12 Graphing Exponential Functions

Find y when x = 3 for $y = 192(\frac{1}{4})^x - 4$.

Task card 13 Graphing Exponential Functions

Find y when x = -1 for $y = 3(3)^x - 3$.

Task card 14 Graphing Exponential Functions

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

Task card 15 Graphing Exponential Functions

Write the range of $y = 5(3)^x - 4$ as an inequality.

Task card 16 Graphing Exponential Functions

The graph of $y = 2^x$ is stretched vertically by a factor of 2 and then shifted 1 unit down. Write the equation of the new graph.

Task card 17 Graphing Exponential Functions

Find y when x = 4 for $y = 243(\frac{1}{3})^x + 6$.

Task card 18 Graphing Exponential Functions

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



Task card 19 Graphing Exponential Functions

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

Task card 20 Graphing Exponential Functions

What is the horizontal asymptote of the graph of $y = 2^x + 6$?

Task card 21 Graphing Exponential Functions

Write the range of $y = 3(2)^x + 1$ as an inequality.

Task card 22 Graphing Exponential Functions

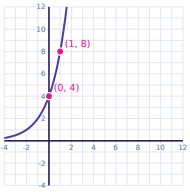
The graph of $y = (\frac{1}{4})^x$ is stretched vertically by a factor of 4 and then shifted 7 units down. Write the equation of the new graph.

Task card 23 Graphing Exponential Functions

Find y when x = 4 for $y = 5(3)^x + 5$.

Task card 24 Graphing Exponential Functions

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



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

Grade 9 · Hard

The answers online

1. $y = 2(4)^x$	**2.** 3	**3.** $y = 2$
4. $y > -2$	**5.** $y = 2(\frac{1}{3})^x + 4$	**6.** 9
7. $y = 12(\frac{1}{4})^x$	**8.** 5	**9.** $y = -2$
10. $y > -8$	**11.** $y = 5(\frac{1}{3})^x + 5$	**12.** -1
13. -2	**14.** $y = 1$	**15.** $y > -4$
16. $y = 2(2)^x - 1$	**17.** 9	**18.** $y = 3^x$
19. 0	**20.** $y = 6$	**21.** $y > 1$
22. $y = 4(\frac{1}{4})^x - 7$	**23.** 410	**24.** $y = 4(2)^x$