



Unit 6 - Graphing Exp Fxns
Homework Worksheet



NAME: *Answer*
PERIOD: *key*

Identify the exponential functions below.

a) $y = 7^x$

b) $y = 9x^2$

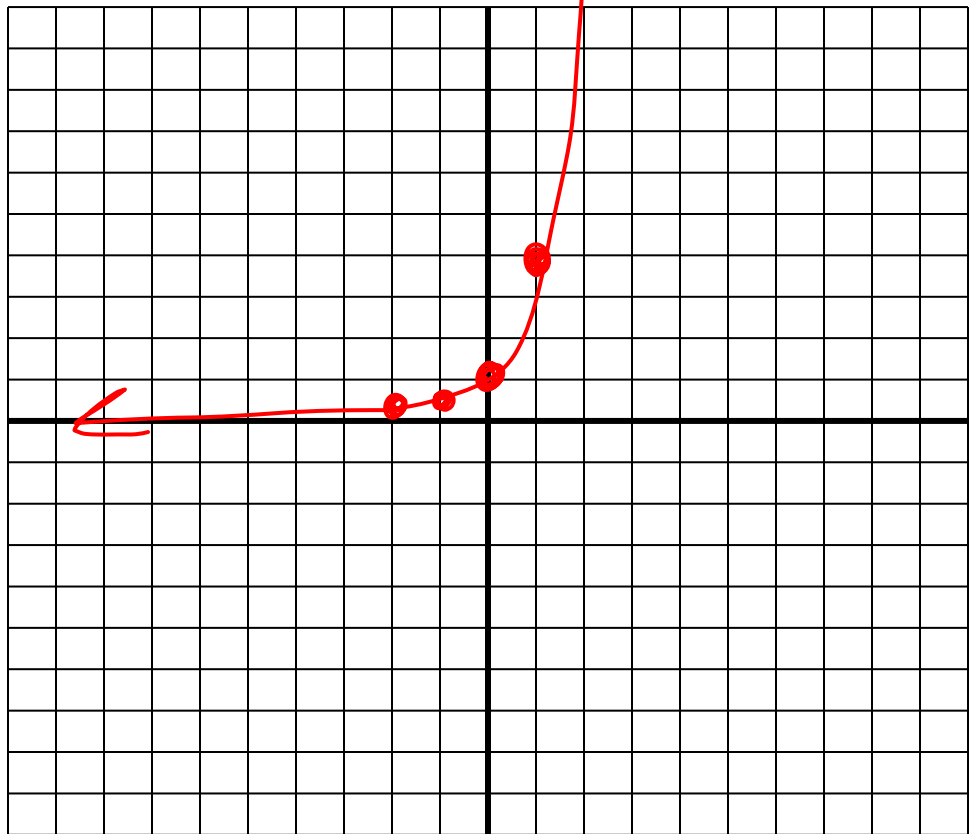
c) $y = 4^{-x}$

d) $y = 7 \cdot 2^x$

$y = (1/4)^x$

For the exponential function, $y = 4^x$, make a table of values.

x	y
-2	$4^{-2} = \frac{1}{4^2} = \frac{1}{16}$
-1	$4^{-1} = \frac{1}{4}$
0	$4^0 = 1$
1	$4^1 = 4$
2	$4^2 = 16$
3	$4^3 = 64$



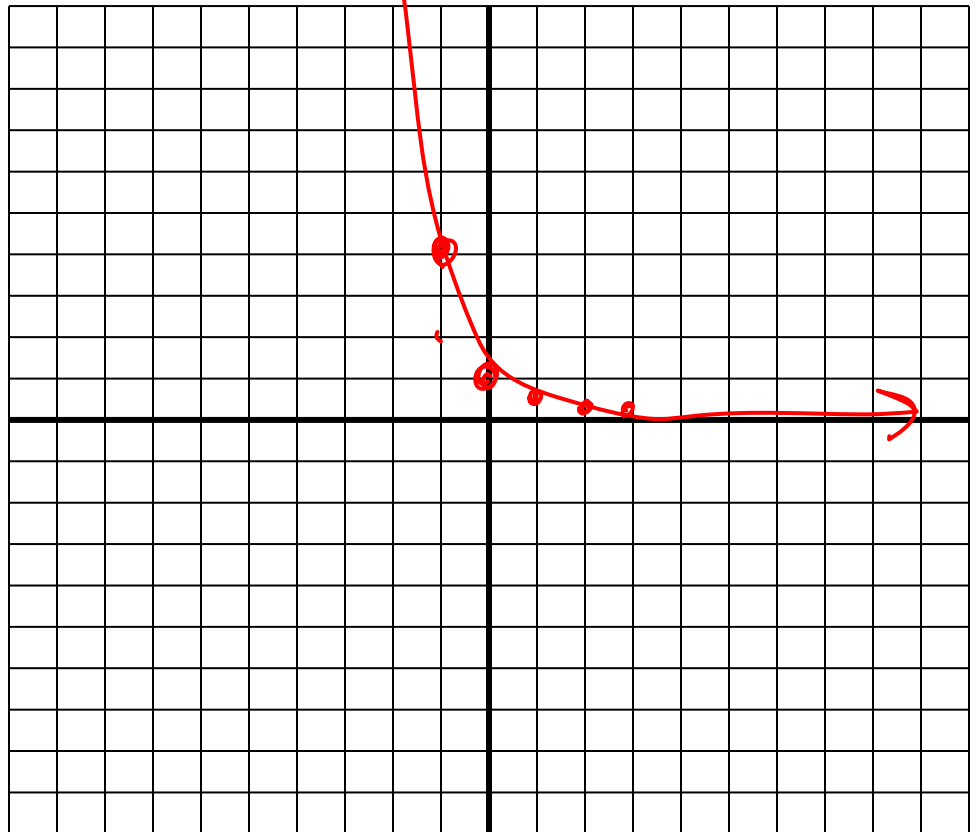
$y = 4^x$
 $1 = 4^0$
 $1 = 1$

Does the point (0, 1) lie on the graph? How do we check?

yes, i plugin

For the exponential function, $y = \left(\frac{1}{4}\right)^x$ make a table and Graph!

x	y
-2	$\left(\frac{1}{4}\right)^{-2} = 4^2 = 16$
-1	$\left(\frac{1}{4}\right)^{-1} = 4^1$
0	1
1	$\frac{1}{4}$
2	$\frac{1}{16}$
3	$\frac{1}{64}$



Compare both of the equations and graphs. How are they alike? How are they different?

alike: they have same y-values just rearranged
different: increase vs. decreasing