

Name:

Date:

Period:

Practice Worksheet: Graphing Logarithmic Functions

Without a calculator, match each function with its graph.

_____ 1. $f(x) = \log_2 x$

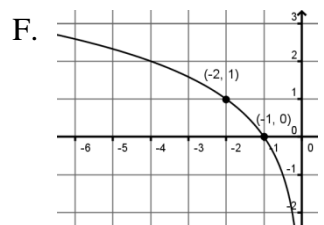
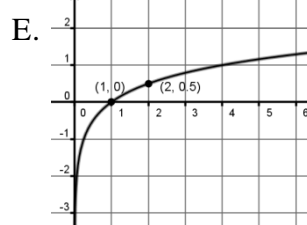
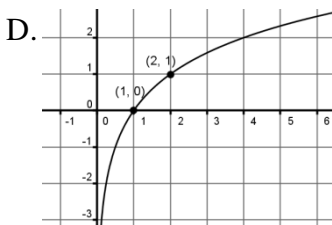
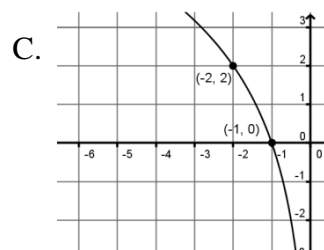
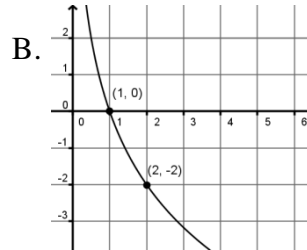
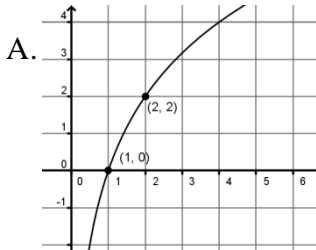
_____ 2. $f(x) = \log_2(-x)$

_____ 3. $f(x) = 2 \log_2 x$

_____ 4. $f(x) = \frac{1}{2} \log_2 x$

_____ 5. $f(x) = 2 \log_2(-x)$

_____ 6. $f(x) = -2 \log_2 x$



Graph without a calculator. Label the two anchor points and dash in the asymptote.

7. $f(x) = 3 \log_{\frac{1}{3}} x + 2$

a = b = c = h = k = Domain:

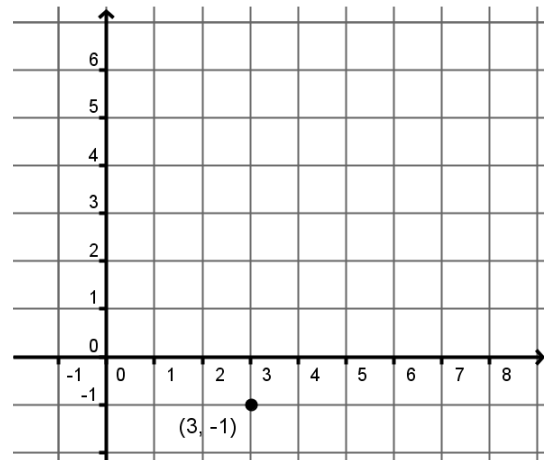
Asymptote: Range:

Transformations:

Parent	
(, 0)	
(, 1)	

Coordinates of the two anchor points:

(____, ____) and (____, ____)



8. $f(x) = -\log_3\left(-\frac{1}{3}x\right)$

a = b = c = h = k = Domain:

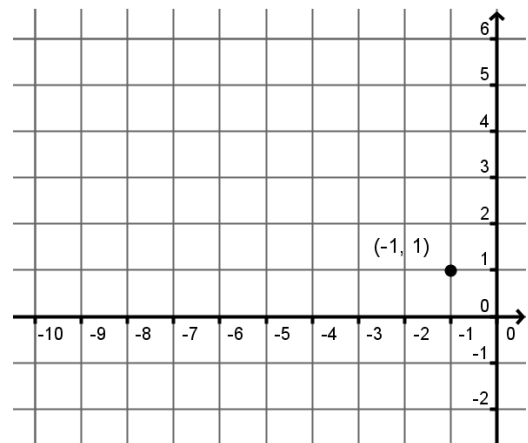
Asymptote: Range:

Transformations:

Parent	
(, 0)	
(, 1)	

Coordinates of the two anchor points:

(____, ____) and (____, ____)



9. $f(x) = -2 \log_{\frac{1}{2}}(x - 3) - 3$

$a =$ $b =$ $c =$ $h =$ $k =$ Domain:

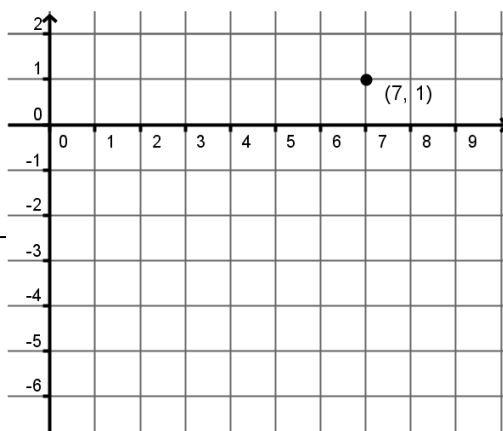
Asymptote: Range:

Transformations:

Parent			
(, 0)			
(, 1)			

Coordinates of the two anchor points:

(____, ____) and (____, ____)



10. $f(x) = -\log_3(3x - 6)$

$a =$ $b =$ $c =$ $h =$ $k =$ Domain:

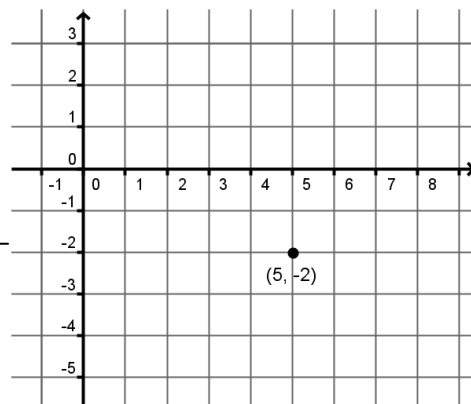
Asymptote: Range:

Transformations:

Parent			
(, 0)			
(, 1)			

Coordinates of the two anchor points:

(____, ____) and (____, ____)



11. $f(x) = 2 \log_2(-x) + 5$

$a =$ $b =$ $c =$ $h =$ $k =$ Domain:

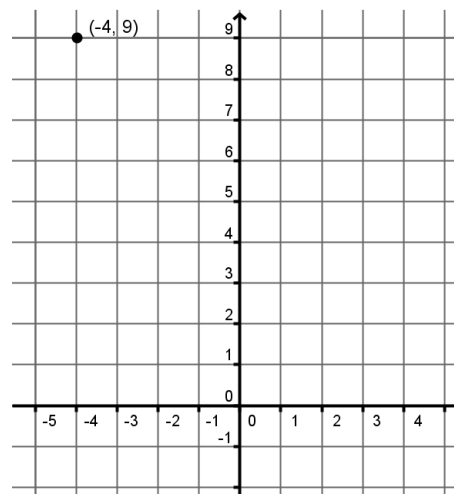
Asymptote: Range:

Transformations:

Parent			
(, 0)			
(, 1)			

Coordinates of the two anchor points:

(____, ____) and (____, ____)



12. $f(x) = \log_4(-4x - 8) - 4$

$a =$ $b =$ $c =$ $h =$ $k =$ Domain:

Asymptote: Range:

Transformations:

Parent			
(, 0)			
(, 1)			

Coordinates of the two anchor points:

(____, ____) and (____, ____)

