

Matching Logarithmic Graphs and Equations:

Name: _____

Directions: Match each equation first with a description of the transformations of the equation (number match) and then with its graph (letter match).

$$y = \log_2(-x)$$

Number Match: _____

Letter Match: _____

$$y = \log_2(x) + 2$$

Number Match: _____

Letter Match: _____

$$y = \log_2(x + 2) - 2$$

Number Match: _____

Letter Match: _____

$$y = -\log_2(x)$$

Number Match: _____

Letter Match: _____

$$y = -\log_2(-x)$$

Number Match: _____

Letter Match: _____

$$y = \log_2(x)$$

Number Match: _____

Letter Match: _____

$$y = \log_2(x + 2)$$

Number Match: _____

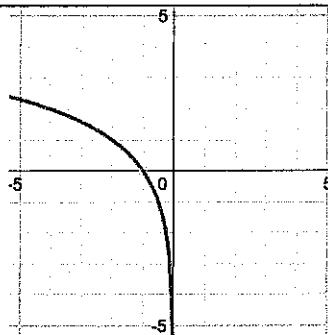
Letter Match: _____

$$y = \log_2(x - 2)$$

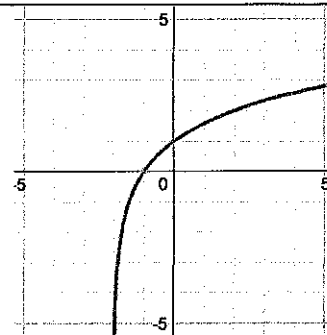
Number Match: _____

Letter Match: _____

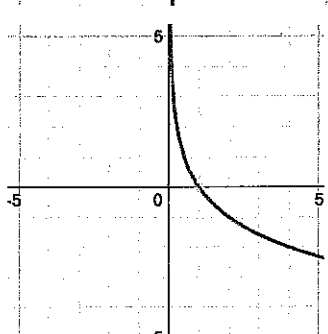
A.



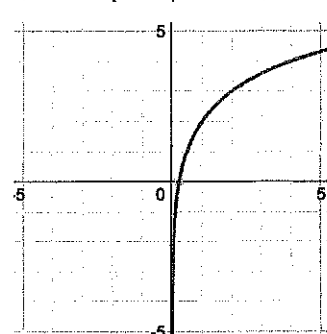
B.



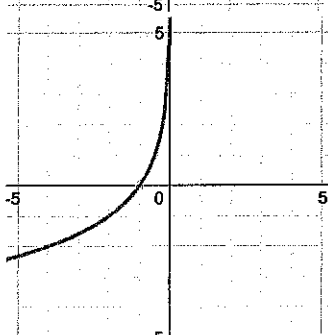
C.



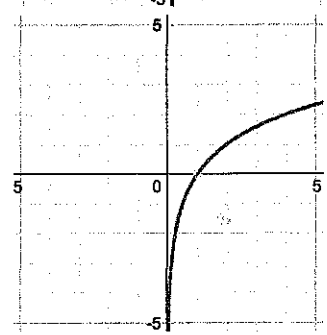
D.



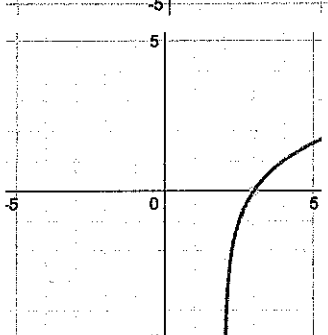
E.



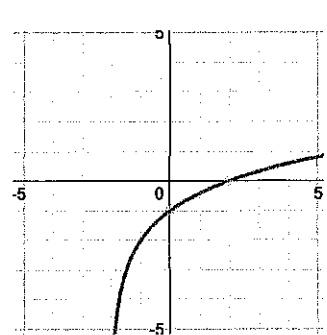
F.



G.



H.



1. $y = \log_2(x)$ reflected over the x axis
2. $y = \log_2(x)$ with no transformations
3. $y = \log_2(x)$ reflected over the y-axis
4. $y = \log_2(x)$ shifted up 2
5. $y = \log_2(x)$ shifted right 2
6. $y = \log_2(x)$ reflected over the x and y axis
7. $y = \log_2(x)$ shifted left 2
8. $y = \log_2(x)$ shifted left 2 and down 2

Answer Key:

3A

4D

8H

1C

6E

2F

7B

5G