Pre- Calculus **Name**_____
Graphing Logarithms Practice **Collected / Not Collected**

Choose the best answer for questions 1-4, question 5 is NOT a multiple choice question.

1. If the following function was graphed in the coordinate plane, which of the following would represent it's y-intercept?

$$y = \log_2(x + 8) + 9$$

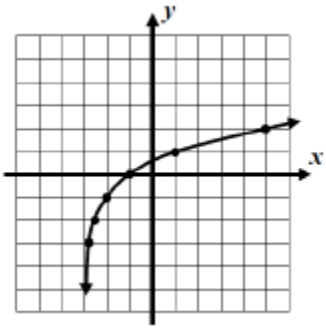
A. 12 B. 13 C. 8 D. 9

2. Between what two consecutive integers must the following value lie?

$$\log_3 40$$

A. 1 and 2 B. 2 and 3 C. 3 and 4 D. 4 and 5

3. Which of the following equations represents the graph below?



(1) $y = \log_3(x+2) - 1$ (3) $y = \log_2(x+3) - 1$

(2) $y = \log_2(x-3) + 1$ (4) $y = \log_3(x+3) - 1$

4. Which of the following values of x are NOT in the domain for the below equation?

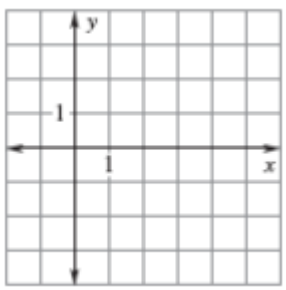
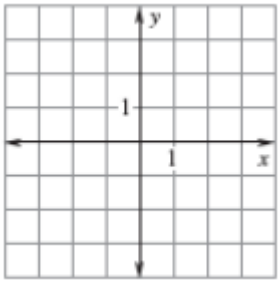
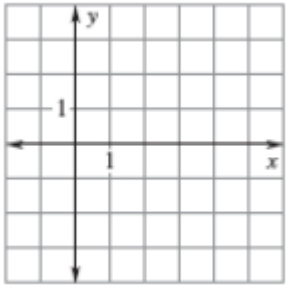
$$f(x) = \log_5(10 - 2x)$$

A. -3 B. 0 C. 5 D. 4

5. Determine the value for each of the following:

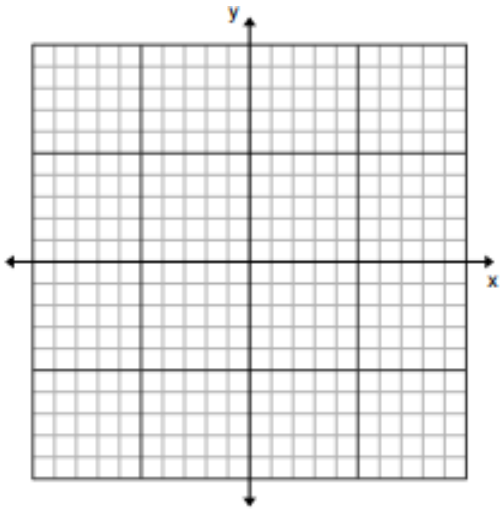
(a) $\log_2 32$ (b) $\log_7 49$ (c) $\log_3 6561$ (d) $\log_4 1024$

6. Graph each function. State the domain and range for each.

Graph: $f(x) = \log_3 x$	Graph: $f(x) = \log_3(x+2)$	Graph: $f(x) = -\log_3 x - 1$
		

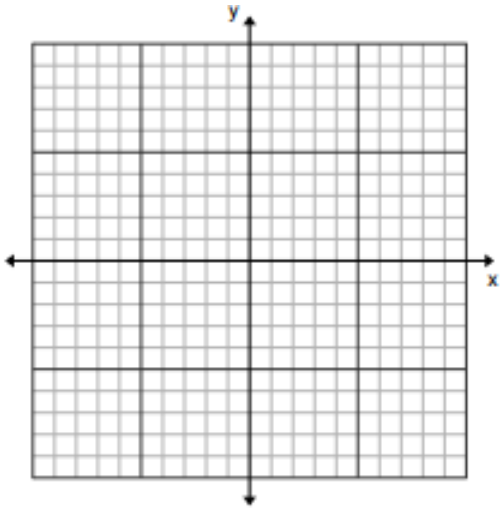
7. Graph. State the parent function and the transformations.

$f(x)=\log_2(x-3)+1$



8. Graph. State the parent function and the transformations.

$f(x)=4\log_{1/3}(x+2)$



9. Graph. State the parent function and the transformations.

$-\log_{1/2} x+3$