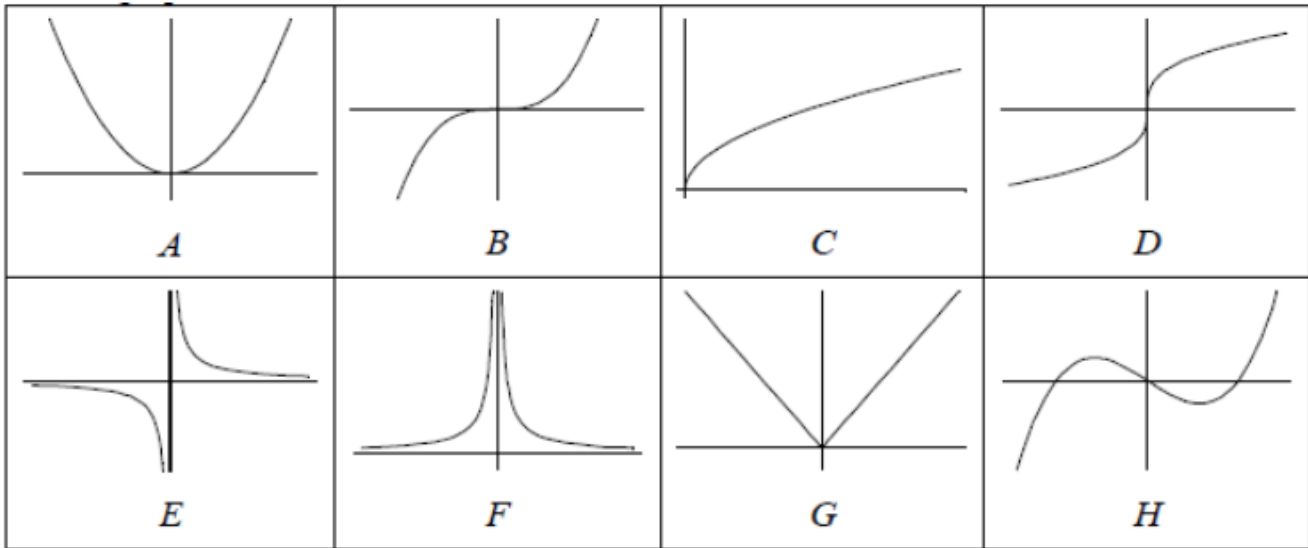


Unit 1 Day 13 Practice – Finding Inverse Functions

1. Circle any graph below that has an inverse function. For those that do not have an inverse function, draw a vertical line that would divide the graph into sections that do have inverse functions.

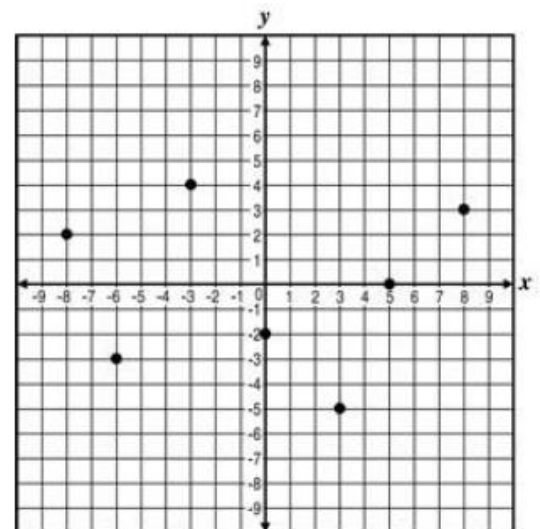


The table to the right shows the values of the function $g(x)$. Use this table to answer the questions below.

x	$g(x)$
-3	-54
-2	-16
-1	-2
0	0
1	2
2	16
3	54

- What is $g(-2)$? _____
- What is $g^{-1}(-2)$? _____
- What is $g(0)$? _____
- What is $g^{-1}(0)$? _____
- What is $g^{-1}(16)$? _____
- What is $g^{-1}(2)$? _____
- What is $g(2)$? _____
- What is $g^{-1}(54)$? _____

The graph to the right represents the function $h(x)$. Use this graph to answer the questions below about $h(x)$.



- Find $h(-3)$: _____
- Find $h^{-1}(-3)$: _____
- Find $h(8)$: _____
- Find $h^{-1}(4)$: _____
- Find $h(-8)$: _____
- Find $h^{-1}(2)$: _____
- Find $h^{-1}(-2)$: _____
- Find $h^{-1}(0)$: _____

18. Three functions are shown below. Two of the functions represent inverses of one another. Identify which two functions are inverses. Prove your answer mathematically.

$$f(x) = 4x^3 - 8$$

$$g(x) = \sqrt[3]{\frac{x+2}{4}}$$

$$h(x) = \sqrt[3]{\frac{1}{4}x + 2}$$

Find the inverse of each function below. Label the inverse function with the proper notation.

19. $f(x) = 3x + 1$

22. $j(x) = \sqrt{3x + 1} - 10$

20. $g(x) = 5 - 2x^2$

23. $k(x) = \frac{3x^2}{4}$

21. $h(x) = \sqrt[3]{4x - 1} + 5$

24. $m(x) = \frac{x-8}{4}$

