

Review Practice Quiz 1

Multiple Choice	× (9/7)	
Free Response	× 1	
Total Score out of 18		

Multiple Choice

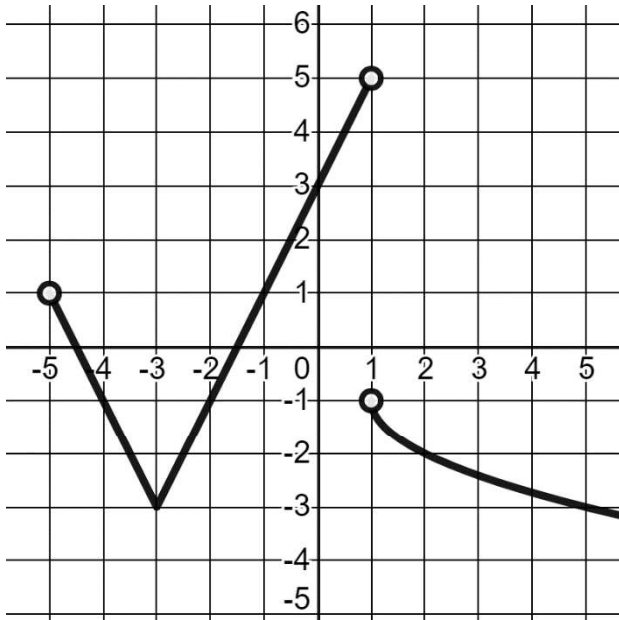
1.	2.	3.	4.	5.	6.	7.

Review

FREE RESPONSE – NO Calculator

Consider the graph of the piece-wise defined function, $h(x)$, pictured.

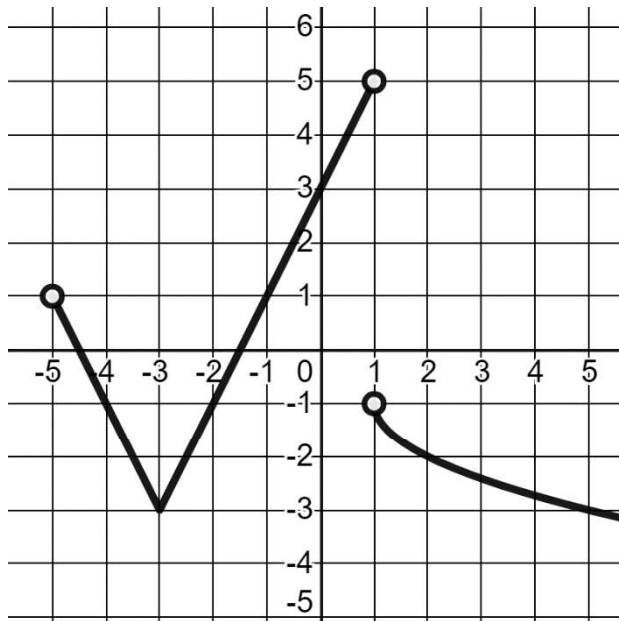
- a. If $h(x) \leq 0$, then explain in words what must be true graphically. Then, state the value(s) of x for which $h(x) \leq 0$.



- b. Find the value(s) of x for which $h(x) = -2$. Using the graph, explain your reasoning.

Review

- c. On the grid below, graph the function $f(x) = (x - 1)^2 - 3$. Then, state the values of x for which $f(x) = h(x)$. Explain how you determined the values of x . If a value of x has been approximated, please denote that using proper notation.

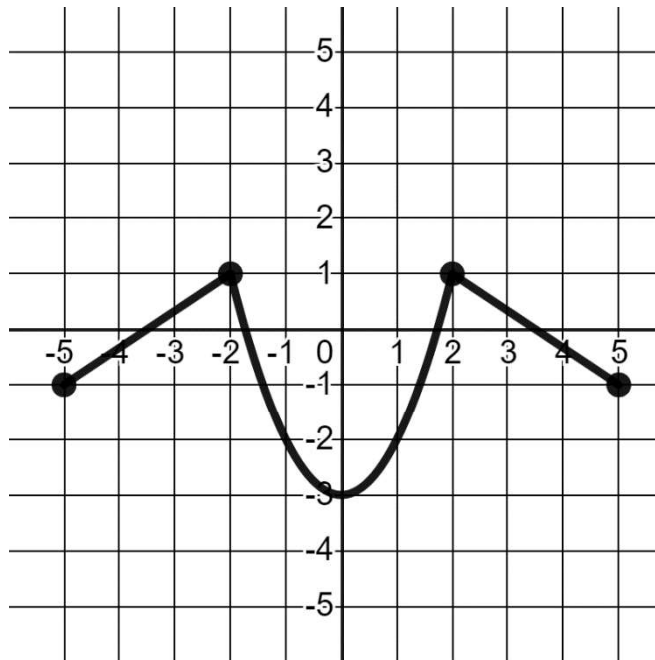


- d. If $p(x) = 3ax^2 - 2x$, then for what value(s) of a does $p(-2) = [2h(-4) + h(0)]$. Show your work.

Review

MULTIPLE CHOICE – NO Calculator

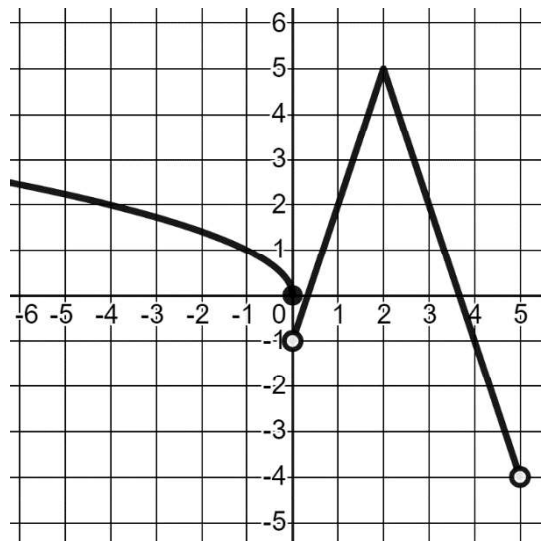
1. Suppose that $g(x) = -(x - 1)^2 + 2$. Which of the following statements is true if $f(x)$ is the function pictured?



- A. $g(2) < f(1.5)$
 B. $g(2) > f(1.5)$
 C. $g(2) = f(1.5)$
 D. No comparison can be made because $f(1.5)$ cannot be determined.
 E. No comparison can be made because $g(2)$ cannot be determined.

2. The graph of a function $h(x)$ is pictured. If $p(x) = 3|x + 2| - 4$, then for what value(s) of x is the function $p(x) = h(4)$?

- A. $x = -1$ only
 B. $x = 3$ and 1
 C. $x = -3$ and -1
 D. $x = -5$ and 1
 E. $x = -1$ and 5



3. The graph of a function $f(x)$ is pictured. Which of the following statements is/are true about the graph of $f(x)$?

I. The graph of $f(x)$ is decreasing on the interval $(-\infty, 0) \cup (1, 3)$.

II. The value of $f(x) = -1$ for all values of x on the interval $[3, 6]$.

III. The domain of $f(x)$ is $(-\infty, 6)$.

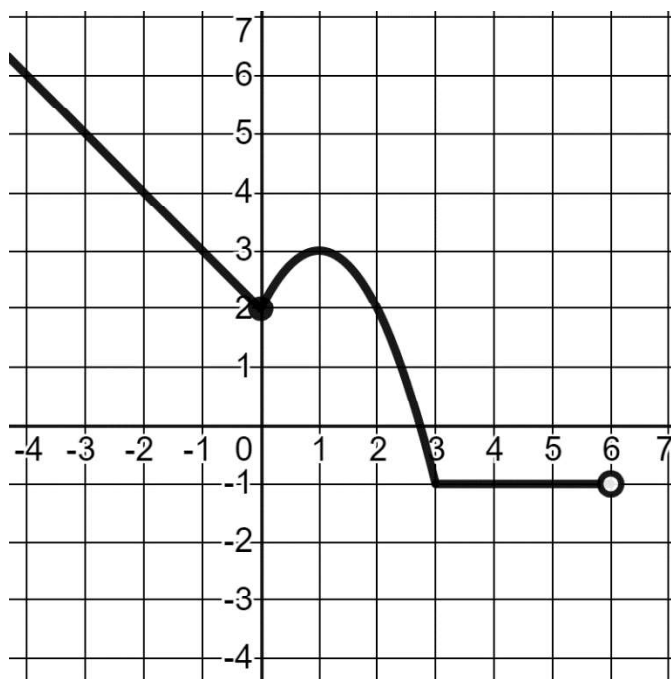
A. I and III only

B. III only

C. II only

D. II and III only

E. I, II and III



4. The graph of $f(x)$ is shown. Which of the following intervals correctly identifies all values of x for which $f(x) > 0$?

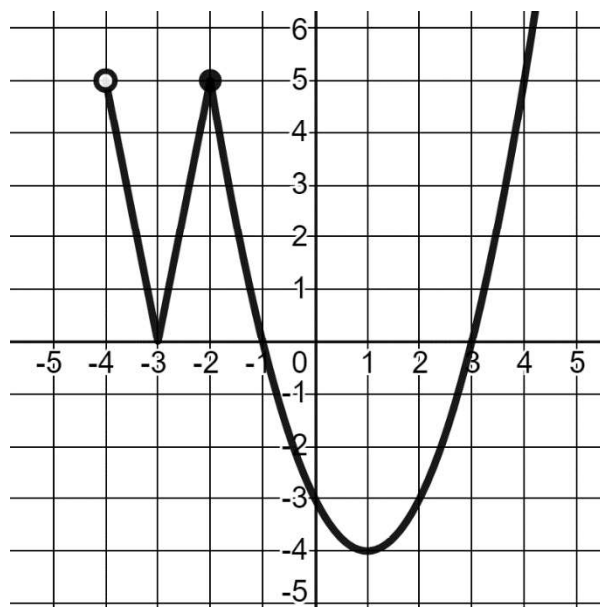
A. $(-4, 1) \cup (3, \infty)$

B. $[-4, 1] \cup (3, \infty)$

C. $(-4, 1) \cup [3, \infty)$

D. $[-4, -3) \cup (-3, -1) \cup (3, \infty)$

E. $(-4, -3) \cup (-3, -1) \cup (3, \infty)$



5. Use the table of values to the right to determine the value of $[f(-1) + 2g(3)]$.

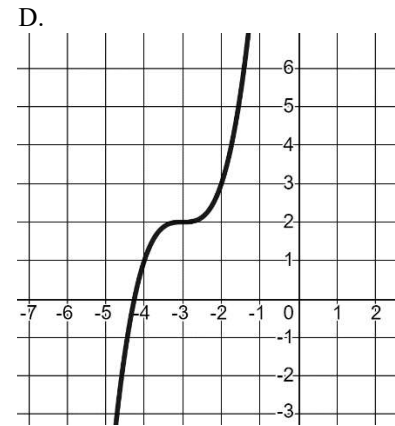
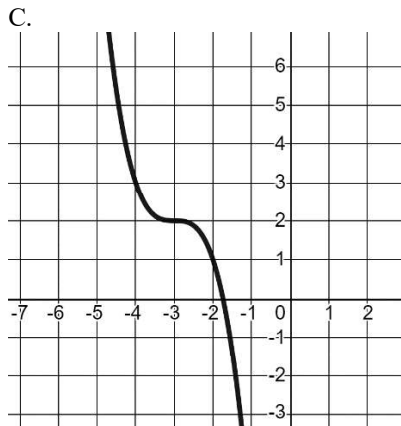
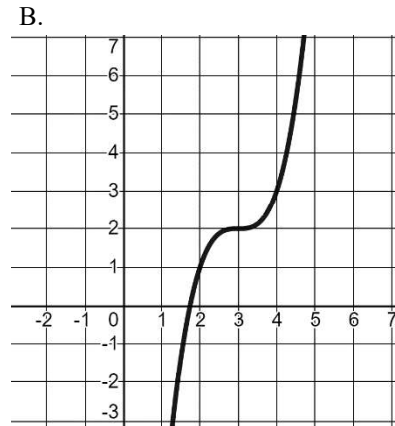
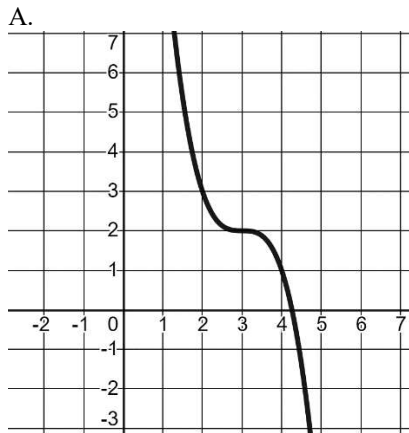
- A. 14
- B. 10
- C. 8
- D. 5
- E. -2

x	$f(x)$	$g(x)$
-2	-2	3
-1	2	3
2	0	4
3	-1	3

6. If $g(x) = \sqrt{x-4} + 6$, for what value(s) of x is $g(x) = -2$?

- A. $x = 3$
- B. $x = 0$
- C. $x = 8$
- D. $x = 20$
- E. No value of x will make $g(x) = -2$.

7. Which of the following graphs is the graph of the function $g(x) = (x - 3)^3 + 2$?



E. None of these graphs