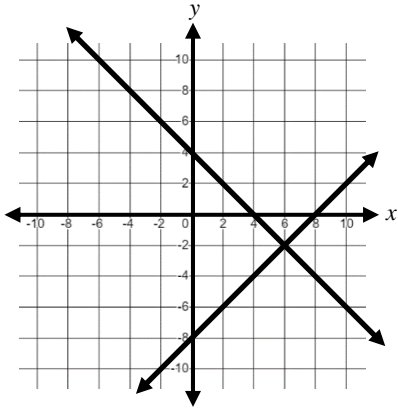


# Algebra 2 Readiness: Summer Post-Assessment

Questions 1-3: Solve systems of equations.

1.  $y = -x + 4$  and  $y = x - 8$



Find the  $x$ -coordinate of the solution: \_\_\_\_\_

2.  $6x - y = 12$  and  $y = 4x$

Find the  $y$ -coordinate of the solution: \_\_\_\_\_

3.  $5x + y = 14$  and  $3x - y = 2$

Find the  $x$ -coordinate of the solution: \_\_\_\_\_



# Algebra 2 Readiness Screener - Spring

(Continued)

**Questions 4-6:** Factor quadratic expressions to reveal the zeros of a function.

4. The area model below represents the expression  $x^2 + 6x + 8$ .

What are the two factors of the expression?

Length

Width	$+x^2$	$+x$	$+x$	$+x$	$+x$
	$+x$	$+1$	$+1$	$+1$	$+1$
	$+x$	$+1$	$+1$	$+1$	$+1$

Factors: \_\_\_\_\_ and \_\_\_\_\_

5. Factor the expression.

$$x^2 + 3x - 10$$

Factors: \_\_\_\_\_ and \_\_\_\_\_

6. Find the zeros of the function.

$$f(x) = x^2 + 9x + 14$$

Zeros: \_\_\_\_\_ and \_\_\_\_\_

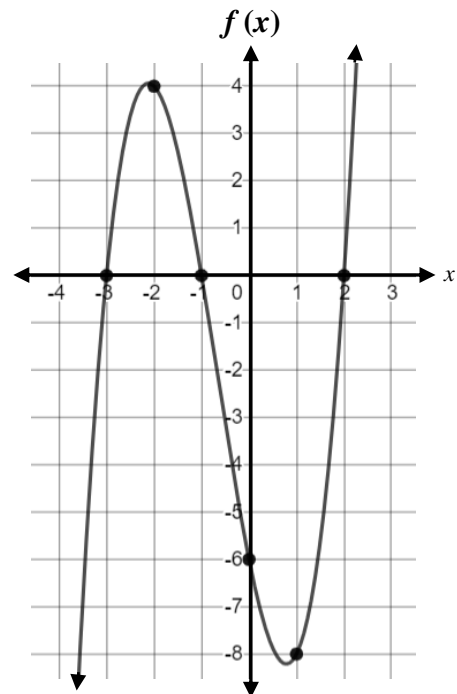


# Algebra 2 Readiness Screener - Spring

(Continued)

Questions 7-9: Evaluate the function.

7. Use the graph to find the value of  $f(0)$ .



Circle your answer:

-8   -7   -6   -5   -4   -3   -2  
-1   0   1   2   3   4

8. For the function  $g(x) = x + 4$ ,  
find the value of  $g(-3)$ .

Answer: \_\_\_\_\_

9. For the function  $h(x) = x^2 + 1$ ,  
find the value of  $h(3)$ .

Answer: \_\_\_\_\_



# Algebra 2 Readiness Screener - Spring

(Continued)

Questions 10-12: Determine if a function is linear or non-linear.

- 10.** Given the function of  $f(x)$  provided in the table, circle the answer choice that makes the statement true.

$x$	0	1	2	3	5
$f(x)$	-2	0	2	4	8

“The function represented in the table is \_\_\_\_\_.”

- non-linear because the values of  $x$  and  $f(x)$  always change at a constant rate
- non-linear because the values of  $x$  and  $f(x)$  do not always change at a constant rate
- linear because the values of  $x$  and  $f(x)$  always change at a constant rate
- linear because the values of  $x$  and  $f(x)$  do not always change at a constant rate

- 11.** Given the function of  $g(x)$  provided in the table, circle the answer choice that makes the statement true.

$x$	0	1	2	3	5
$g(x)$	-2	0	2	4	6

“The function represented in the table is \_\_\_\_\_.”

- non-linear because the values of  $x$  and  $g(x)$  always change at a constant rate
- non-linear because the values of  $x$  and  $g(x)$  do not always change at a constant rate
- linear because the values of  $x$  and  $g(x)$  always change at a constant rate
- linear because the values of  $x$  and  $g(x)$  do not always change at a constant rate

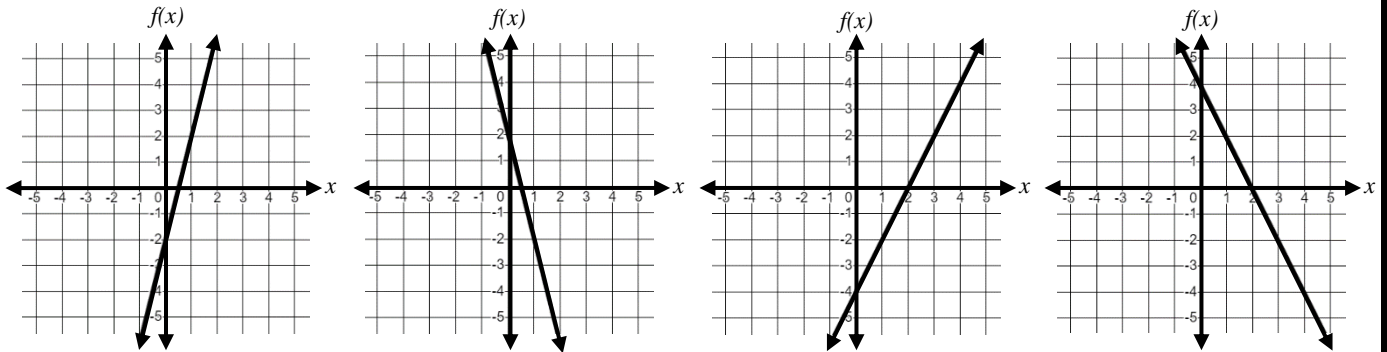
- 12.** Circle all of the linear functions.

$$f(x) = x \quad g(x) = x^2 + 4 \quad h(x) = 3x + 4 \quad k(x) = 3^x + 4$$

Questions 13-15: Identify graphs of linear and non-linear functions.

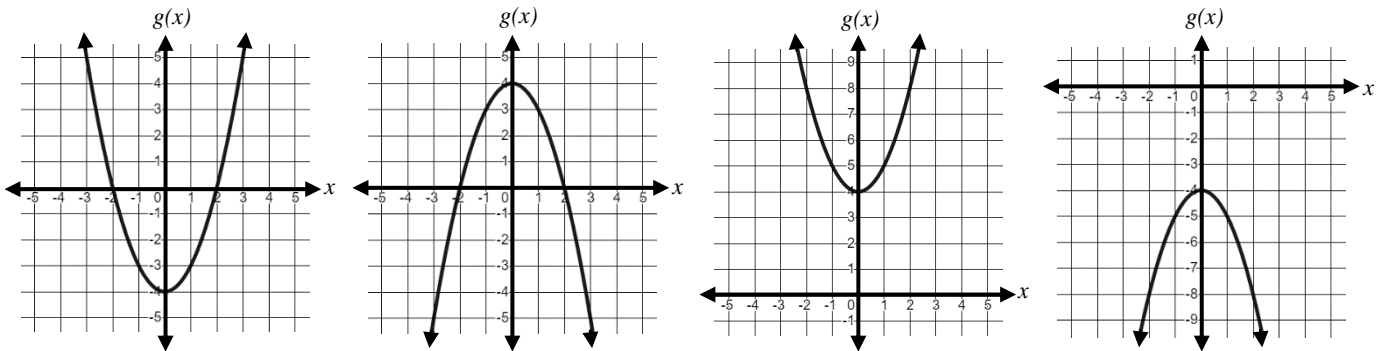
**13.** The function  $f(x) = 4x - 2$  could be represented by which graph?

Circle your answer:



**14.** The function  $g(x) = -x^2 + 4$  could be represented by which graph?

Circle your answer:



**15.** The function  $h(x) = (x - 3)^2 - 5$  could be represented by which graph?

Circle your answer:

