NAME _____ DATE _____ PERIOD _____

Study Guide and Intervention

Multiplying Functions

Exercises

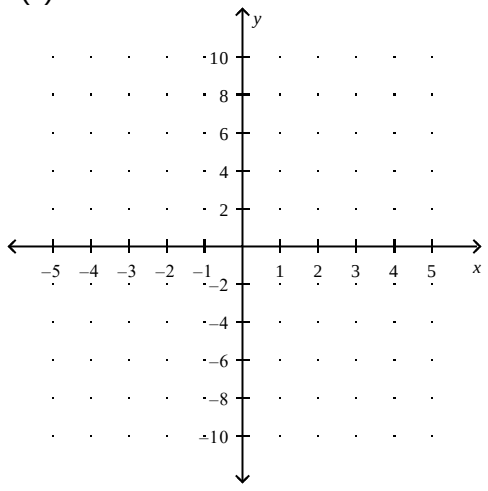
Use the functions to answer the questions.

$$f(x) = 3x - 2$$
$$g(x) = 4x + 3$$
$$h(x) = f(x) \cdot g(x)$$

1. Complete the table shown for specific x values for f(x), g(x), and h(x).

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

2. Sketch a graph of the functions f(x), g(x) and h(x).



3. Write the equation of the combined function h(x) = f(x) · g(x).

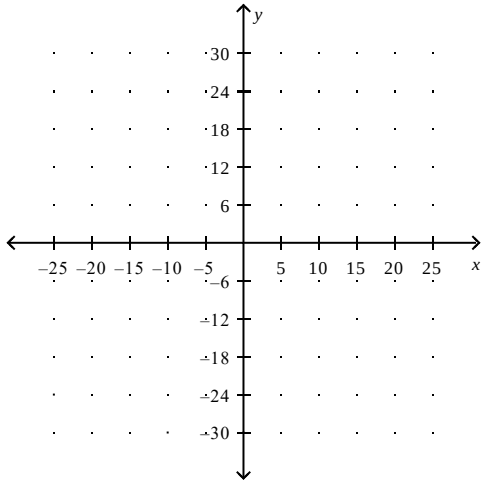
Use the functions to answer the questions.

$$p(x) = \frac{1}{2}x + 4$$
$$q(x) = \frac{1}{4}x - 6$$
$$r(x) = p(x) \cdot q(x)$$

4. Complete the table shown for specific x values for p(x), q(x), and r(x).

x	$p(x)$	$q(x)$	$r(x)$
-2			
-1			
0			
1			
2			
3			
4			
5			

5. Sketch a graph of the functions p(x), q(x), and r(x).



6. Write the equation of the combined function r(x) = p(x) · q(x).

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Study Guide and Intervention

Multiplying Functions

Exercises

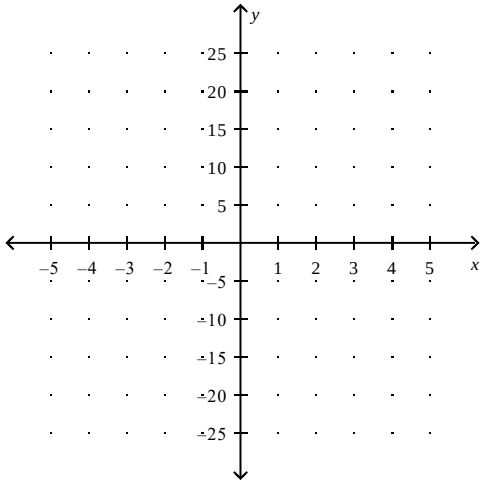
Use the functions to answer the questions.

$$f(x) = (-2x + 5)^2$$
$$g(x) = 4x - 1$$
$$h(x) = f(x) \cdot g(x)$$

7. Complete the table shown for specific x values for f(x), g(x), and h(x).

x	$p(x)$	$q(x)$	$r(x)$
-2			
-1			
0			
1			
2			
3			
4			
5			

8. Sketch a graph of the functions f(x), g(x) and h(x).



9. Write the equation of the combined function h(x) = f(x) · g(x).

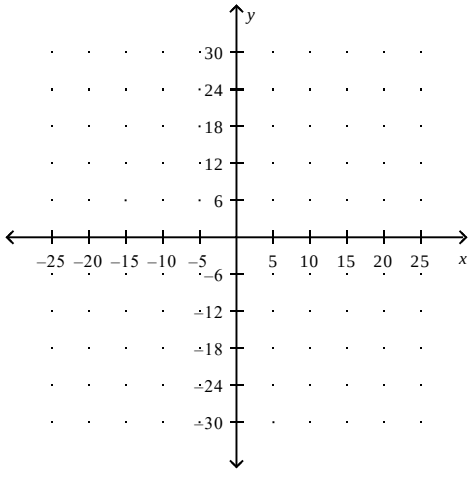
Use the functions to answer the questions.

$$p(x) = (\tfrac{1}{2}x - 3)^2$$
$$q(x) = 4x + 8$$
$$r(x) = p(x) \cdot q(x)$$

10. Complete the table shown for specific x values for p(x), q(x), and r(x).

x	$p(x)$	$q(x)$	$r(x)$
1			
2			
3			
4			
5			
6			
7			
8			

11. Sketch a graph of the functions p(x), q(x), and r(x).



12. Write the equation of the combined function r(x) = p(x) · q(x).