Algebraic Reasoning
Name:_____

Per:_____

POINTS:____

Classwork #31 Quiz

Be sure to include your work when appropriate.

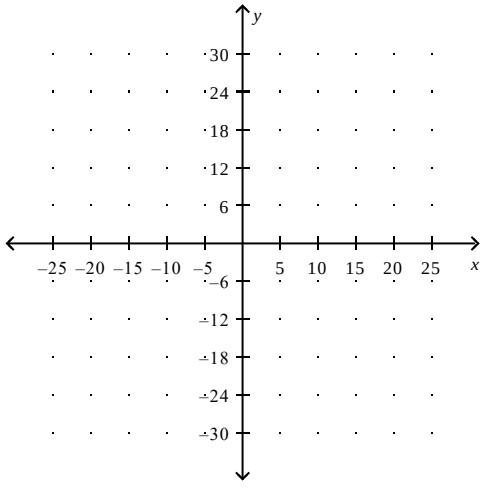
Use the functions to answer the questions.

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

1. 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			

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



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

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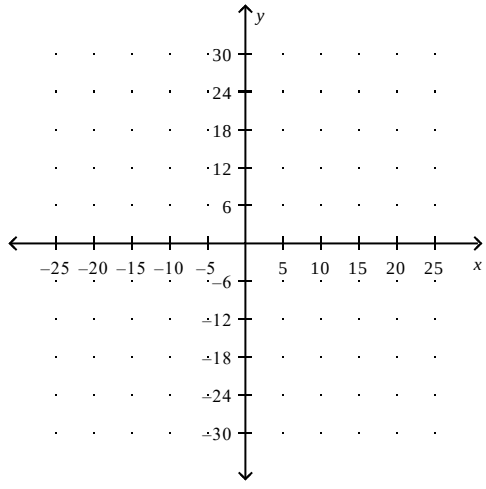

3. Write the equation of the combined function r(x) = p(x) · q(x).

Use the functions to answer the questions.

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

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

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

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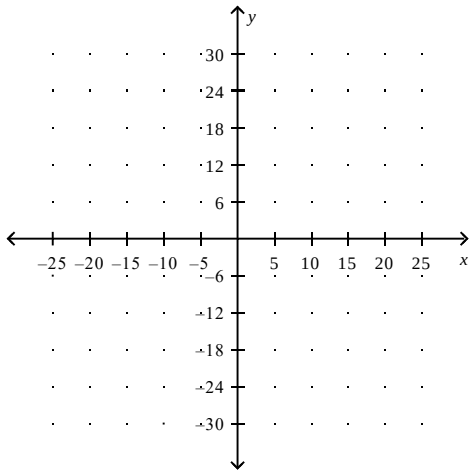

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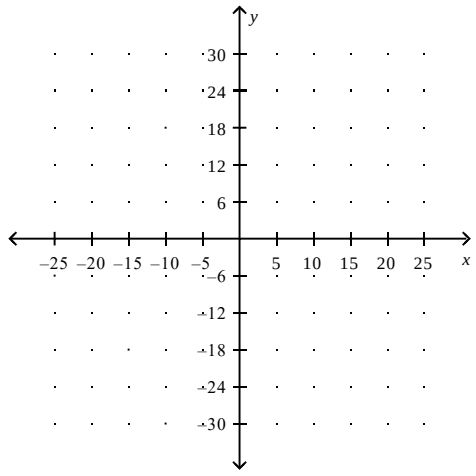

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