

UNIT 2 • LINEAR FUNCTIONS

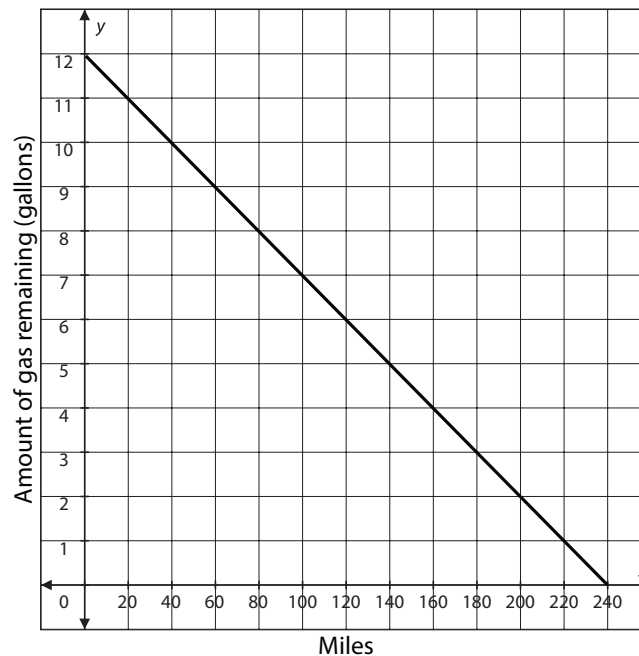
End-of-Unit Assessment

Assessment

Unit 2 End-of-Unit Assessment

Circle the letter of the best answer.

1. The following graph can be described as:



- a. having a maximum of 12 and a minimum of 0
- b. having a maximum of 240 and a minimum of 0
- c. having no maximum
- d. having no minimum
2. Molly joins a produce delivery service that charges a membership fee plus \$16 for each delivery. Which parameter is not defined?
- a. the slope
- b. the y -intercept
- c. x
- d. $f(x)$

continued

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3. Use the table to determine the rate of change for the interval $[10, 15]$.

Weeks (x)	Amount owed in dollars ($f(x)$)
0	\$1,500
5	\$1,350
10	\$1,200
15	\$1,050
20	\$900

- a. $-\$150$ per week
b. $\$10$ per week
c. $-\$30$ per week
d. $\$15$ per week
4. What is true about the set of all solutions for $y = f(x)$?
- a. It can be graphed.
b. It is infinite.
c. It is a set of ordered pairs.
d. all of the above

5. Which explicit function represents the pattern in the table?

x	y
1	-25
2	-35
3	-45
4	-55
5	-65

- a. $f(x) = -10x - 15$
b. $f(x) = 10x - 15$
c. $f(x) = 10x + 15$
d. $f(x) = -10x + 15$

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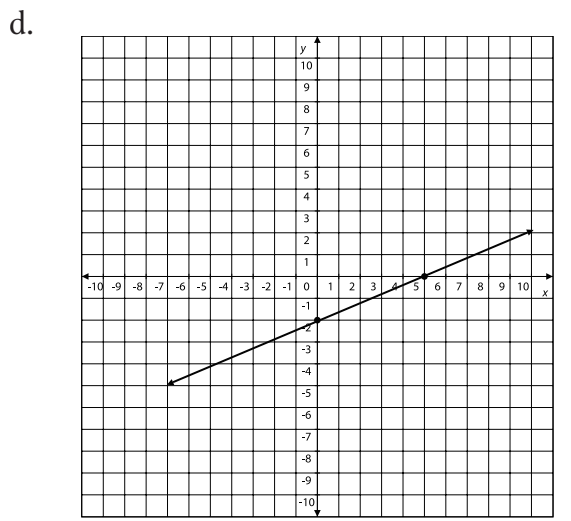
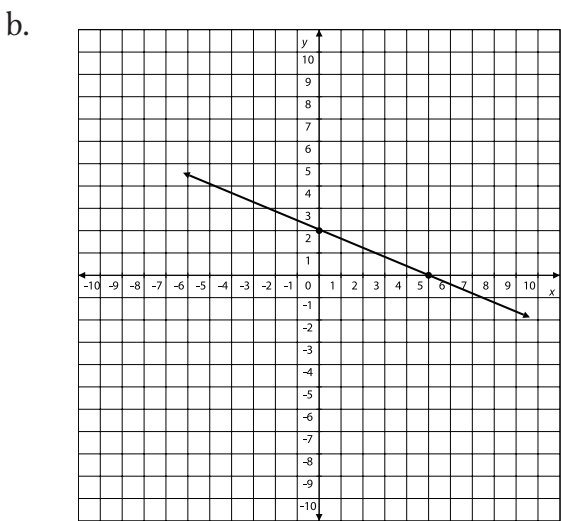
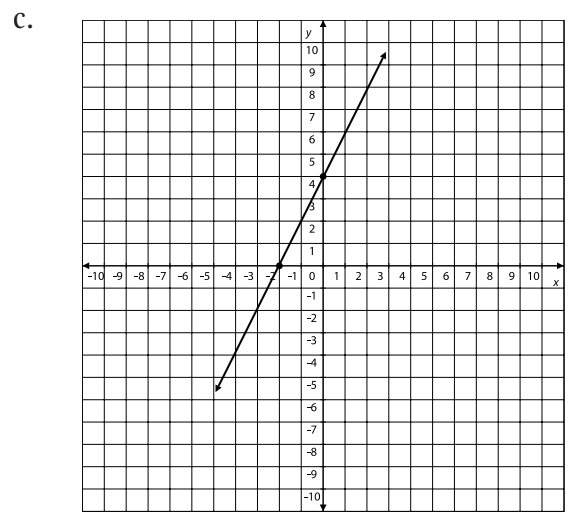
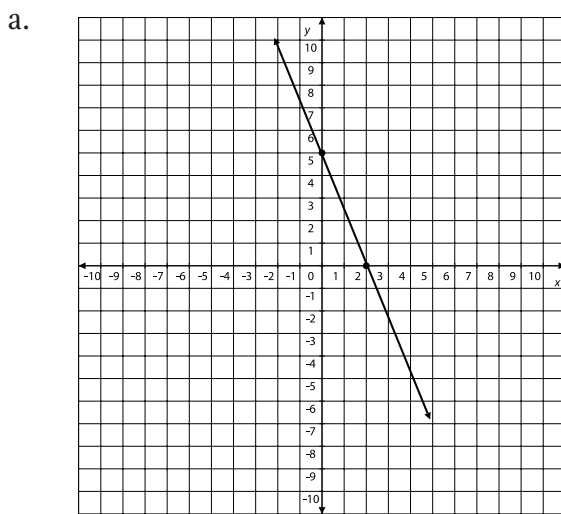
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6. The fourth term in an arithmetic sequence is 7. If the sequence has a common difference of 3, what is the ninth term?

- a. -2
- b. 3
- c. 22
- d. 25

7. Which graph shows a line with a y -intercept of -2 ?



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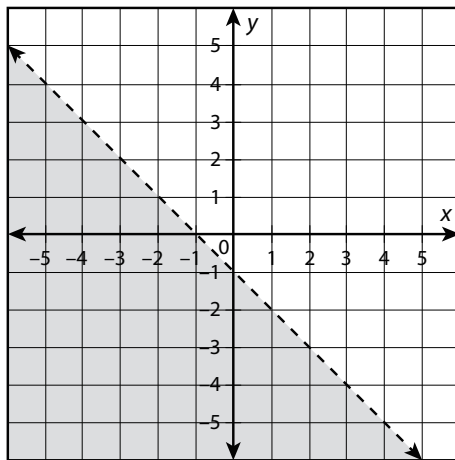
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8. Which of the following statements is true about the functions $f(x)$ and $g(x)$?

$$f(x) = \frac{2}{3}x - 6$$

x	$g(x)$
-4	10
0	7
4	4
8	1

- The rate of change of $f(x)$ is faster than the rate of change of $g(x)$.
 - The rate of change of $f(x)$ is slower than the rate of change of $g(x)$.
 - The y -intercept of $f(x)$ is equal to the y -intercept of $g(x)$.
 - The y -intercept of $f(x)$ is greater than the y -intercept of $g(x)$.
9. Which inequality corresponds to this graph?



- $y < -x - 1$
- $y > x - 1$
- $y \leq -x - 1$
- $y \leq x + 2$

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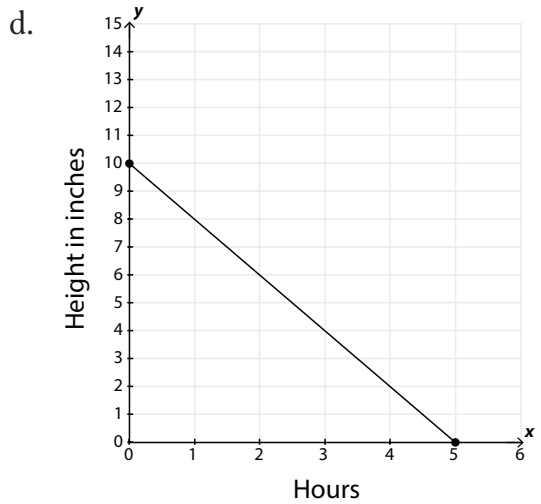
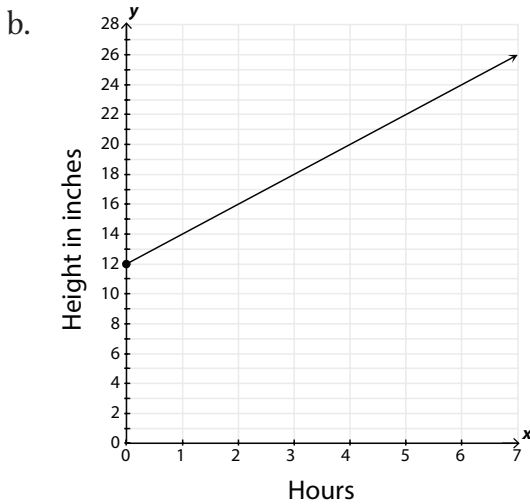
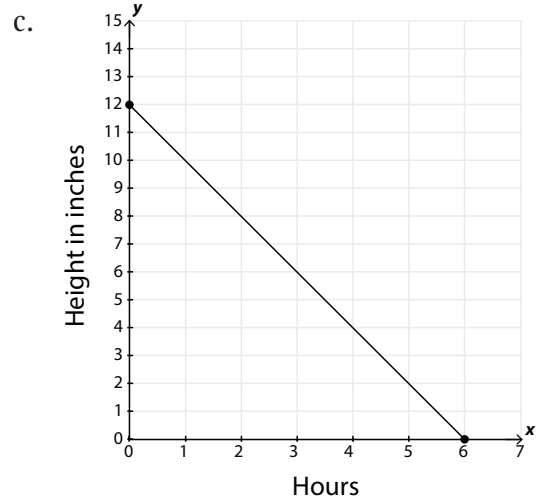
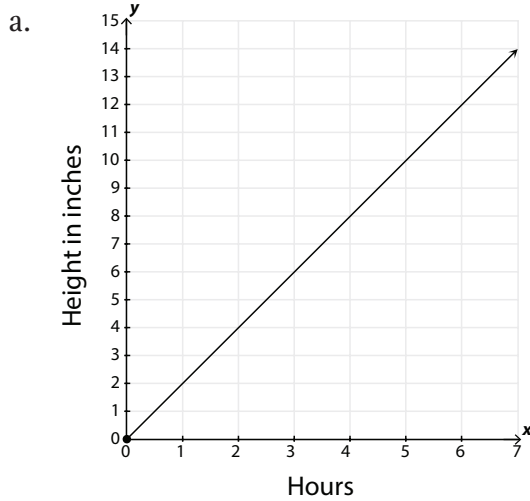
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10. A 12-inch candle burns down at a rate of 2 inches per hour. What is the graph of the equation that models the height of the candle over time?

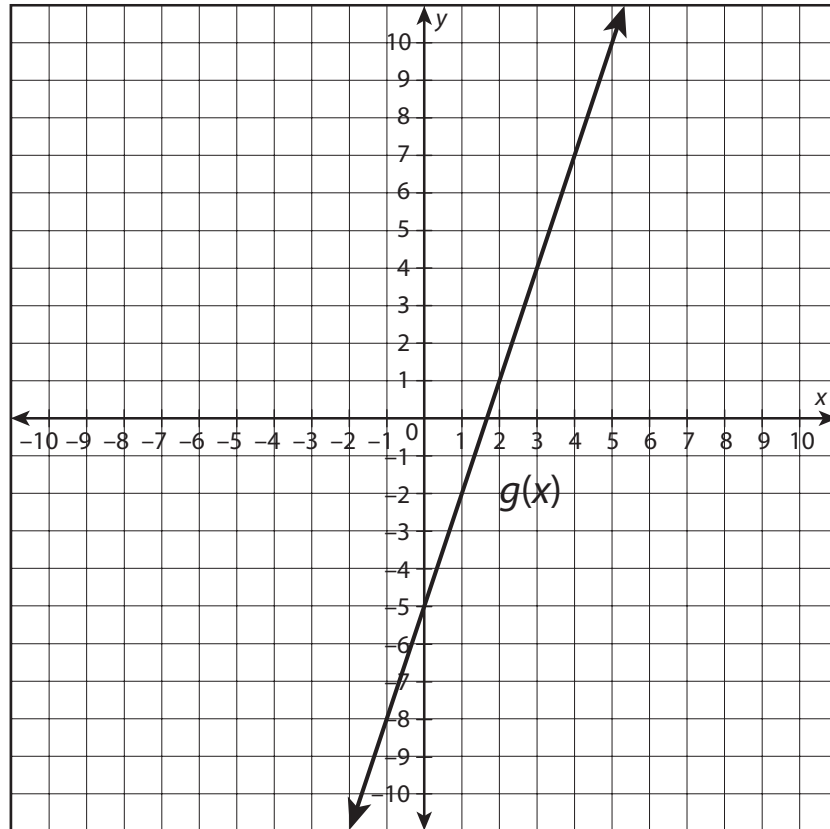


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11. Which of the following statements is true about the functions $f(x)$ and $g(x)$, shown in the table and graph?

x	$f(x)$
-2	15
0	7
2	-1
4	-9



- The rates of change for both $f(x)$ and $g(x)$ are equal.
- The y -intercepts for both $f(x)$ and $g(x)$ are equal.
- The function $g(x)$ has a greater y -intercept than the function $f(x)$.
- The function $f(x)$ has a greater y -intercept than the function $g(x)$.

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