Quiz Aug 14, 2013

Teacher: Brandon Wolfe Course: CCSS Algebra I

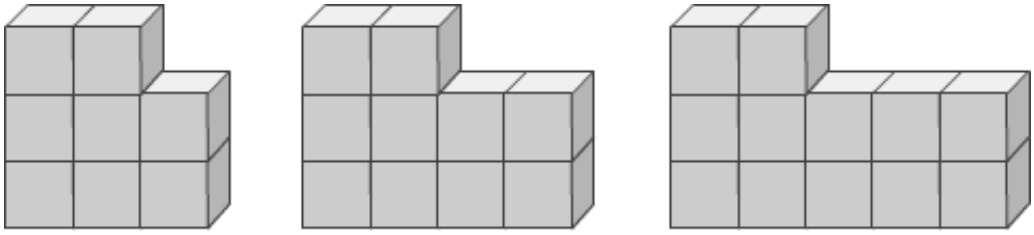
Description

2. Multiple representations in the real world	
Testing | Multiple choice	1 2 3 4 5 6 7 8 9 10

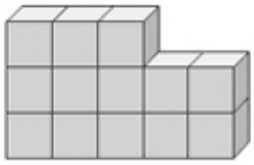
Q1 2. Multiple representations in the real world | Testing | Multiple choice | Page 1

Suppose you are designing short walls to go across the front of flower beds. The walls will be built with small concrete blocks in the design shown here. Each block is 1-foot long by 1-foot wide by 1-foot high. Only whole blocks can be used for the walls.

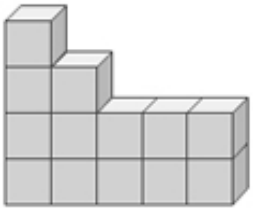
The three smallest sizes of wall are shown. What would the next largest wall look like?



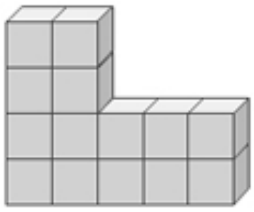
A.



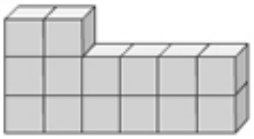
B.



C.



D.



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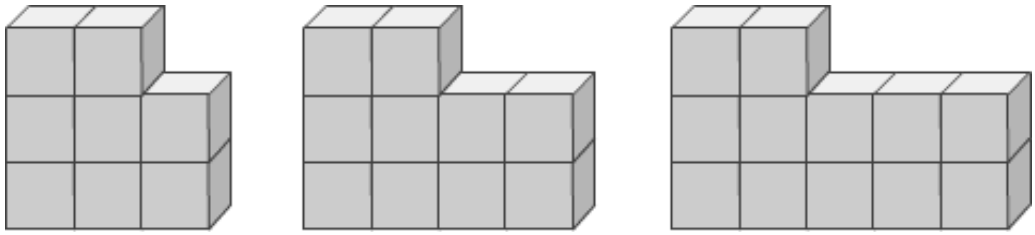
Suppose you are designing short walls to go across the front of flower beds. The walls will be built with small concrete blocks in the design shown here. Each block is 1-foot long by 1-foot wide by 1-foot high. Only whole blocks can be used for the walls.



What is a numerical representation of the relationship between the number of blocks in each wall, b, and the length of each wall in feet, f?

A.

f	8	10	12	14
b	1	2	3	4

B.

f	1	2	3	4
b	8	10	12	14

C.

f	8	10	12	14
b	3	4	5	6

D.

f	3	4	5	6
b	8	10	12	14

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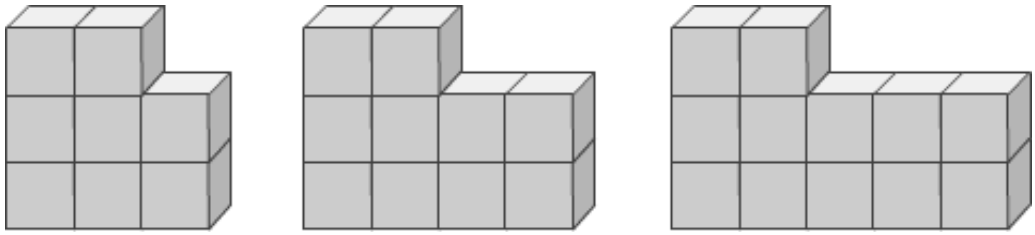
Suppose you are designing short walls to go across the front of flower beds. The walls will be built with small concrete blocks in the design shown here. Each block is 1-foot long by 1-foot wide by 1-foot high. Only whole blocks can be used for the walls.



What is **not** true about a graphical representation of the relationship between the number of blocks in each wall, b, and the length of each wall in feet, f?

A. The horizontal axis (x-axis) is labeled "Length of wall in feet."

B. The first point on the graph is at (3,8) and the points form a curve.

C. The vertical axis (y-axis) is labeled with "Number of blocks in wall."

D. The first point on the graph is at (3,8) and the points would form a line.

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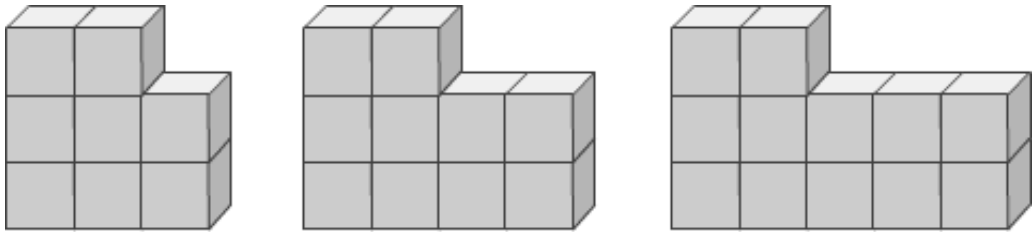
Suppose you are designing short walls to go across the front of flower beds. The walls will be built with small concrete blocks in the design shown here. Each block is 1-foot long by 1-foot wide by 1-foot high. Only whole blocks can be used for the walls.



What is **not** a symbolic representation of the relationship between the number of blocks in each wall, b, and the length of each wall in feet, f?

A. $b = 2 + 2f$

B. $b = 6 + 2f$

C. $b = 6 + 2(f - 2)$

D. $b = 8 + 2(f - 3)$

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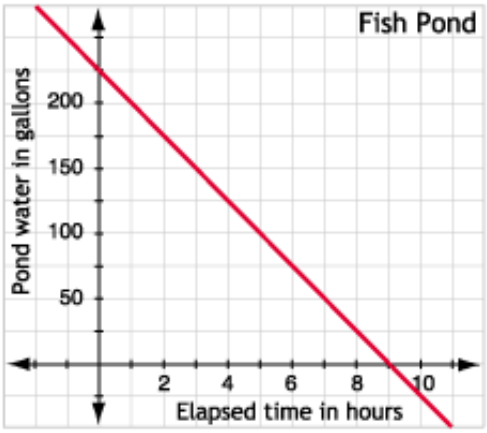
This graph shows the algebraic rule that models the relationship between time in hours and the amount of water in a fish pond. What is one thing you might conclude from this representation?



A. As time passes, more water is being added to the pond.

B. As time passes, the pond is losing water at a steady rate.

C. As time passes, the amount of water in the pond is staying the same.

D. As time passes, the pond is losing water, but the rate of loss is not steady.

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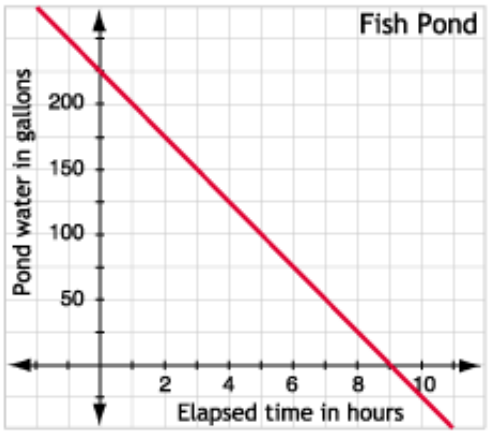

This graph shows the algebraic rule that models the relationship between time in hours and the amount of water in a fish pond. According to the graphical representation, when will the pond be empty?

A. after 225 hours

B. after 225 minutes

C. after 9 hours

D. after 9 minutes

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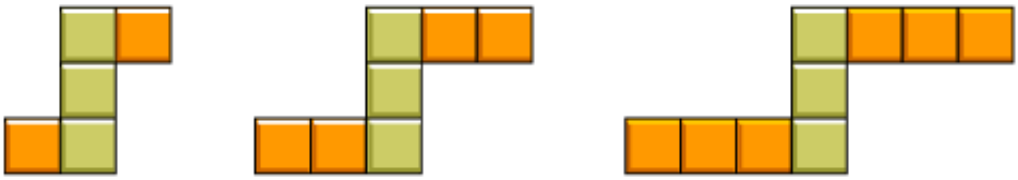
Mariah is trying different sidewalk designs for her garden. She wants one tile walkway with "wings" of equal length that run in opposite directions, as shown here.



Mariah realizes that there is a relationship between the number of tiles in a "wing" (shown in orange) and the number of tiles in the entire walkway. Her models are the concrete representation of this relationship.

Which of the following is a numerical representation of this relationship?

Tiles in a wing	Tiles in a walkway
1	2
2	4
3	6

A

Tiles in a wing	Tiles in a walkway
1	3
2	3
3	3

B

Tiles in a wing	Tiles in a walkway
1	5
2	7
3	9

C

A. A

B. B

C. C

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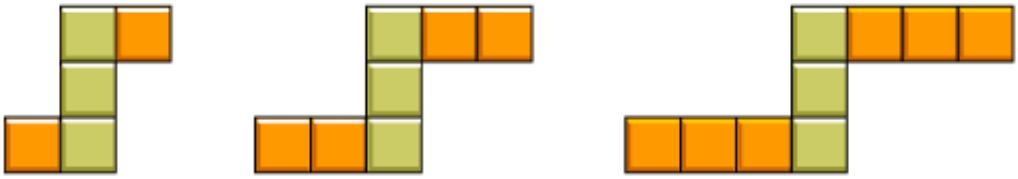

Which of the following would **not** be an accurate symbolic representation of the relationship between the number of tiles in a "wing", w, and the number of tiles in the entire walkway, t?

A. $t = 3 + 2w$

B. $t = 3 + w$

C. $t = 1 + 2(w + 1)$

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Long-Distance Phone Charges

Minutes	Cost
0	$3.50
1	$3.60
2	$3.70
3	$3.80
4	$3.90

The cost of a call under a certain long-distance plan depends on the number of minutes the call lasts. In this table, you can see a numerical representation of this relationship.

Which verbal description most accurately describes this relationship between the number of minutes and the cost of the call?

A. The cost of any length call is $3.50.

B. The longer the call, the higher the cost.

C. The cost of any call is the number of minutes times $0.10.

D. The cost of any call is $3.50 plus the number of minutes times $0.10.

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Long-Distance Phone Charges

Minutes	Cost
0	$3.50
1	$3.60
2	$3.70
3	$3.80
4	$3.90

The cost of a call under a certain long-distance plan depends on the number of minutes the call lasts. In this table, you can see a numerical representation of this relationship.

Which algebraic rule most accurately describes the relationship between the number of minutes, m, and the cost of the call, c?

A. $c = 3.50m$

B. $c = 3.50 + m$

C. $c = 3.50 + 0.10m$

D. $c = 3.60 + 0.10m$