

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

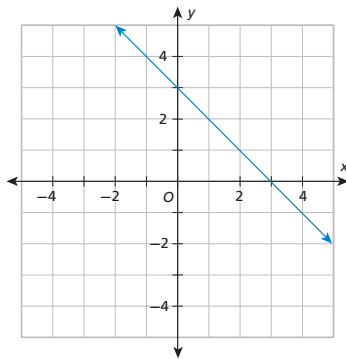
## SELECTED RESPONSE

1. Write an equation for the values in the table. Use the equation to find the value of  $y$  when  $x = 14$ .

<b>x</b>	6	8	10	12	14
<b>y</b>	13	19	25	31	?

- A.  $y = 2x + 1$ ; 29    C.  $y = 2x + 3$ ; 31  
 B.  $y = 3x - 5$ ; 37    D.  $y = 4x - 11$ ; 45

2. Which equation represents the graph in the figure below?



- F.  $y = 6x + 8$     H.  $y = -x + 3$   
 G.  $y = \frac{5}{7}x - 3$     J.  $y = 2x - 1$

3. Tanya walks dogs. She earns \$10.50 for each dog she walks. She wants to go to a concert that costs \$157.50. Write an equation relating the number of dogs she needs to walk to the amount of money she earns. Find how many dogs Tanya needs to walk to go to the concert. Let  $n$  be the number of dogs Tanya walks.

- A.  $10.5 + n = 157.5$ ; 147 dogs  
 B.  $10.5n = 157.5$ ; 15 dogs  
 C.  $10.5n = 157.5$ ; 1654 dogs  
 D.  $10.5n = 157.5$ ; 147 dogs

4. A parking garage charges \$2.00 for the first hour and \$0.50 for each fraction of an hour thereafter. Which statement describes the relationship between the parking fee and the amount of time a person parks in the garage?

- F. The parking fee depends on the amount of time a person uses the garage.  
 G. The amount of time a person uses the garage depends on the parking fee.  
 H. The parking fee and the amount of time a person uses the garage are independent.  
 J. The relationship cannot be determined.

5. The data in the table show the relationship between a person's weight on Earth and the person's weight on the Moon. Which equation best represents the person's weight on the Moon,  $m$ , as related to the person's weight on Earth,  $e$ ?

Weight on Earth (lbs)	Weight on the Moon (lbs)
0	0
80	13.60
105	17.85
130	22.10

- A.  $e = 0.17m$     C.  $m = 0.17e$   
 B.  $m = 5.88e$     D.  $e = 5.88m$

6. Solve the equation  $x - 4.5 = 17$ .

- F.  $x = 3.8$     H.  $x = 21.5$   
 G.  $x = 12.5$     J.  $x = 76.5$

7. Solve the equation  $p + 2\frac{4}{5} = 4\frac{1}{2}$ .

- A.  $p = 1\frac{3}{10}$     C.  $p = 2\frac{3}{10}$   
 B.  $p = 1\frac{7}{10}$     D.  $p = 2\frac{7}{10}$

8. Lei's coach kept track of her time as she ran 12 miles. The results are shown in the table below. What is the rate of change?

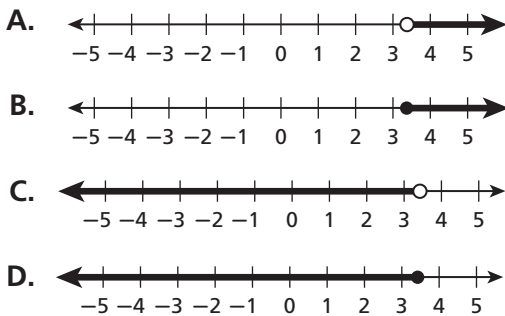
<b>Mile</b>	2	4	6	8	10	12
<b>Minute</b>	14	28	42	56	70	84

- F. constant            H. not defined  
 G. variable            J. all of these
9. Which number would complete the table?
- A. 10                    C. 14  
 B. 12                    D. 16

<b>x</b>	3	5	7	9
<b>y</b>	2	6	10	??

10. A store charges \$1.50 for a 20-oz bottle of sport drink. Which equation best represents the total cost,  $y$ , of  $x$  bottles?
- F.  $y = 20x$             H.  $x = 1.5y$   
 G.  $y = 20y$             J.  $y = 1.5x$

11. Graph the inequality  $w \geq 3.4$ .

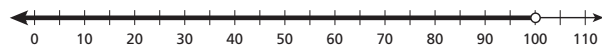


### CONSTRUCTED RESPONSE

12. On the first day Corey did 35 sit-ups. On the second day he did 70 sit-ups, and on the third day he did 105 sit-ups. If Corey continues this pattern, how many sit-ups will he do in  $d$  days?

Day	Number of Sit-ups
1	35
2	70
3	105
$d$	

13. Consider the graph of the inequality.



- a. Write the solution set of the inequality in words.
- \_\_\_\_\_
- \_\_\_\_\_
- b. write an inequality for the graph.
- \_\_\_\_\_
- \_\_\_\_\_
- c. Describe a real-world situation that can be represented by the inequality.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
14. Kelly needs to make 8 ladders for the school play. Each ladder has 9 rungs and each rung is 1.6 ft in length.
- a. How many feet of wood are needed to make the rungs for one ladder?
- \_\_\_\_\_
- b. If the rungs of the ladder are cut from 12ft-long pieces of wood, how many pieces of wood does Kelly need to buy to make all 8 ladders? Explain.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_