

Name _____ Period _____ Date _____

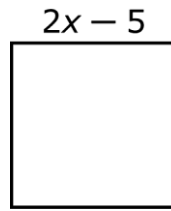
Grade 6 Unit 3 Model Curriculum Assessment

1. Mike is saving money for a new bike that costs \$180.00. If m represents the amount of money he has saved so far, which expression represents the amount of money, in dollars, he still needs to save?
 - a. $180 + m$
 - b. $180 - m$
 - c. $180 \cdot m$
 - d. $180 \div m$

2. Juan brings two suitcases on an airplane. The total maximum allowable weight of the two suitcases is w pounds. His first suitcase weighs 32 pounds. Write an expression that represents the maximum allowable weight, in pounds, of Juan's second suitcase.

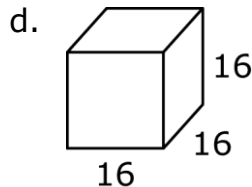
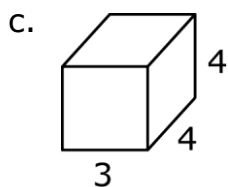
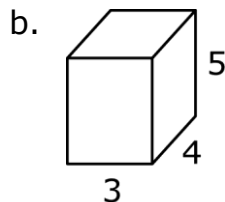
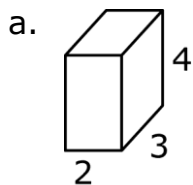
3. Emily needs to buy 3 binders and 5 notebooks for school. Write an expression that represents the total cost of the binders and notebooks, where b is the cost of one binder and n is the cost of one notebook.

4. Write an expression that represents the perimeter of the square below, where the length of each side of the square is $2x - 5$.



5. A rental car company charges a fee of \$150.00 for renting a car for a week plus \$0.25 per mile driven. Write an expression that represents the cost of renting the car for a week and driving it m miles.
6. Which of the following values for x will make the equation $12 - x = 5$ true?
- a. - 17
 - b. - 7
 - c. 7
 - d. 17

7. The formula $V = l \times w \times h$ gives the volume of a rectangular prism in terms of its length, width, and height. Which of the following rectangular prisms has a volume of 48 cubic inches?



8. Which of the following gives a set of numbers that are all solutions of the inequality $x + 6 < 9$?

- a. $\{-10, -7, -2, -1\}$
- b. $\{-6, -3, 0, 3\}$
- c. $\{-5, -1, 3, 6\}$
- d. $\{4, 7, 10, 16\}$

9. Is $h = 8$ a solution to the inequality $h - 2 > 6$? Explain your answer.

10. Which values from the set $\{-5, 0, 2.5, 5, 10\}$ make the inequality $8g \leq 40$ true? Show your work or explain your answer.
11. Four friends went to the movies. Each person bought a movie ticket, and the total the four friends spent on the tickets was \$52. Which equation can be used to find the cost of each ticket?
- a. $4 + x = 52$
 - b. $x - 4 = 52$
 - c. $4x = 52$
 - d. $\frac{x}{4} = 52$
12. Maria had a package of crackers. After she ate 8 of the crackers, there were 14 crackers left in the package. Which equation can be used to find the number of crackers that were in the package before Maria ate the crackers?
- a. $8 - c = 14$
 - b. $c - 8 = 14$
 - c. $\frac{8}{c} = 14$
 - d. $\frac{c}{8} = 14$

13. Solve the equation $x - 20.7 = 9.5$ for x . Show your work.

14. Solve the equation $\frac{4}{9}y = \frac{8}{3}$ for y . Show your work.

15. Katie is 4 years younger than Sylvia. Let k represent Katie's age, and let s represent Sylvia's age.

Part A: Using the variables defined above, write an equation that shows the relationship between Katie's age and Sylvia's age.

Part B: Use the equation from Part A to find how old Sylvia is when Katie is 13 years old. Show your work.