

Practice Worksheet

Content Standard: Language of Algebra

Student Learning Expectations: Distinguish between “expression,” “equation,” “simplify,” & “solve”.

1. In the equation $\frac{16xy}{2x} = 8y$, the term $8y$ is the
 - a. difference.
 - b. exponent.
 - c. denominator.
 - d. quotient

2. What is the value of $\frac{8a+3b}{2c}$ if $a = 9$, $b = -6$ and $c = -3$?

3. Which of the following would be an intermediate step in solving the equation $8y + 5 - 3y = 10$?
 - a. $5y = 5$
 - b. $5y = 15$
 - c. $11y = 5$
 - d. $11y = 15$

4. Which of the following are equations?
 - a. $\pi = \frac{C}{d}$
 - b. $l * w * h$
 - c. $A = \pi r^2$

5. Which of the following is an expression?
 - a. $x^2 + 3x + 1 = 4$
 - b. $x^2 + 4x + 8 > 4$
 - c. $2x^2 + 6x + 3$
 - d. $2x^2 + x + 4 \neq 6$

6. Which of these represents an equation?
 - a. 3 times a number plus 5
 - b. 5 times a number equals 3
 - c. 7 and the sum of x and 3.14
 - d. 3.14 and the product of 7 and x

7. What would be the **best** first step in solving the following problem? $5(x - 3) = 100$

8. Howard delivers newspapers before school each weekday morning (Monday through Friday). He is paid \$5 a day plus \$0.25 for each newspaper he delivers.
 - a. Write an expression that shows how much money Howard earns *each* day. Let n represent the number of newspapers delivered *each* day.

Name _____ Date _____

b. Using the expression created in part (a), write an equation that shows that Howard earned \$87.50 for a five-day period (Monday through Friday). Assume he delivers the same number of newspapers each day.

c. Solve the equation you wrote in part (b) to help determine how many newspapers Howard delivered during that five-day period. Show all the details of your work even if you use mental math.