SOL 8.17 Unit 5 Equations Name: _____

Unit 5-3 apply properties of real numbers and properties of equality to solve multistep linear equations in one variable.

1. Mrs. Singh wrote this equation on the board.

$$\frac{1}{4}(2n - 28) = 10$$

What is the solution?

A. $n = 17$
B. $n = 19$
C. $n = 34$
D. $n = 68$

2. Solve the equation below for p.

$$5p = 21 + 2p$$

A. 3
B. 4
C. 7
D. 10

3. What value for x makes this equation true?

$$\frac{1}{2}(x - 9) = x - 23$$

A. 16
B. 28
C. 37
D. 55

4. Write a value for x that will make this equation true. $x = -5x + 6$

Answer: _____

5. Write a value for x that will make this equation true. $5x + 8 + 3x = 26 + 6x$

Answer: _____

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Target 5-4 a) write verbal expressions and sentences as algebraic expressions and equations b) write algebraic expressions and equations as verbal expressions and sentences.

Target 5-5 solve practical problems that require the solution of a multistep linear equation

1. Which of the following is the algebraic form for the verbal statement shown?

   "subtract 3 from a number, n, and divide the result by 5"

   A $n - \frac{3}{5}$

   B $n - 5 \div 3$

   C $\frac{n-3}{5}$

   D $n - 3(5)$

2. Provide the algebraic sentence that would represent the verbal sentence, "15 is the result of ten less than two-thirds of a number".

   Answer: _____

3. Which phrase best represents $\frac{y}{5} + 2$?

   A The sum of two and the difference of a number, y, and five.
   B The sum of two and the quotient of a number, y, and five.
   C The difference of two and the quotient of a number, y, and five.
   D The quotient of two and the sum of a number, y, and five.

4. Provide the algebraic sentence for "six less than twice a number is four".

5. Gillian has a certain amount of money. If she spends $12, which is the same as $\frac{1}{5}$ the original amount, how much money did Gillian have originally?

   Answer: _____