Quiz: Linear Equations in One Variable

Section: Solution of an Equation and The Properties of Equality

Sub-section: Solution of an Equation and The Properties of Equality

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Choose the correct answer.

1. Which of the following statements is the equation?

   (Remember, MA 1.3 G.7/1)

   A. $4x > 28$

   B. $12a + 7b \neq 7a + 12b$

   C. $23 + 11m = 0$

   D. $1 \leq 100n + 2020$

   Solution $23 + 11m = 0$

   C is the equation, because C is the statement that has the property of equality of two expressions connected by equals sign " = ".

2. Find a solution of the equation $7 + 4x = 27$.

   (Understand, MA 1.3 G.7/1)

   A. $x = 4$

   B. $x = 5$

   C. $x = 6$

   D. $x = 7$

   Solution $x = 5$

   $x = 5$ is the solution of this equation, because $x = 5$ makes the equation true.

3. Find a solution of the equation $9y = 108$.

   (Understand, MA 1.3 G.7/1)

   A. $y = 9$

   B. $y = 10$

   C. $y = 11$

   D. $y = 12$

   Solution $y = 12$

   $y = 12$ is the solution of this equation, because $y = 12$ makes the equation true.

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4. Find a solution of the equation $(3z \div 6) + 5 = 15$.

   (Understand, MA 1.3 G.7/1)

   A. $z = 18$

   B. $z = 19$

   C. $z = 20$

   D. $z = 21$

   Solution $z = 20$

   $z = 20$ is the solution of this equation, because $z = 20$ makes the equation true.

5. Identify the property in "$13x = 143$ is equivalent to $143 = 13x$".

   (Remember, MA 1.3 G.7/1)

   A. symmetry

   B. reflection

   C. multiplication

   D. division

   Solution symmetry

   "$13x = 143$ is equivalent to $143 = 13x$" uses the property of symmertry.

6. Identify the property in "$8 + 6y = 26$ is equivalent to $8 + 6y - 8 = 26 - 8$".

   (Remember, MA 1.3 G.7/1)

   A. addition

   B. subtraction

   C. distribution

   D. reflection

   Solution subtraction

   "$8 + 6y = 26$ is equivalent to $8 + 6y - 8 = 26 - 8$" uses the property of subtraction.

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7. Which of the following statements use the property of distribution?.
   (Remember, MA 1.3 G.7/1)
   A. $a - 45 = a - 45$
   B. $4b - 9 = 23$ is equivalent to $4b - 9 + 9 = 23 + 9$
   C. $12(c + 7) = 144$ is equivalent to $12(c) + 12(7) = 144$
   D. $22d = 110$ is equivalent to $22d \div 22 = 110 \div 22$

   Solution $12(c + 7) = 144$ is equivalent to $12(c) + 12(7) = 144$
   " $12(c + 7) = 144$ is equivalent to $12(c) + 12(7) = 144$ " uses the property of distribution.

8. Which of the following statements is true?
   (Understand, MA 1.3 G.7/1)
   A. $33e - 12 = 54$ is equivalent to $33e - 12 + 12 = 54 + 11$
   B. $6f = 36$ is equivalent to $6f \div 6 = 36 \times 6$
   C. $9 + 15g = 114$ is equivalent to $9 + 15g - 9 = 114 - 9$
   D. $\frac{3h}{7} = 51$ is equivalent to $\frac{3h}{7} \times \frac{7}{3} = 51 \times \frac{3}{7}$

   Solution $9 + 15g = 114$ is equivalent to $9 + 15g - 9 = 114 - 9$
   $33e - 12 = 54$ is equivalent to $33e - 12 + 12 = 54 + 12$,
   $6f = 36$ is equivalent to $6f \div 6 = 36 \div 6$,
   $\frac{3h}{7} = 51$ is equivalent to $\frac{3h}{7} \times \frac{7}{3} = 51 \times \frac{7}{3}$