

**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.

## Quiz: Linear Equations in One Variable

### Section: Solution of an Equation and The Properties of Equality

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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 symmetry.

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  $\frac{3h}{7} \times \frac{7}{3} = 51 \times \frac{7}{3}$