

Solving Math 9 Equations Part 5

February-06-17
3:05 PM

Mathematics 9 Equation Solving Solving Math 9 Equations Part 5

Over the past few days we have been looking at solving multi-step equations. Today we will be looking at solving another type of multi-step equation.

Solve and check the following equations.

A. Equation Type #6 (Multi-Step)

$$1) \quad 3(x-4) = -18$$
$$3x - \cancel{12} = -18$$

+12 +12

$$\frac{3x}{3} = \frac{-6}{3}$$

$$\boxed{x = -2}$$

Check

$$3(x-4) = -18$$
$$3((-2)-4) = -18$$
$$3(-6) = -18$$
$$-18 = -18 \checkmark$$

$$2) \quad 4(y+1) = 2(11-y)$$
$$4y + 4 = 22 - \cancel{2y}$$

+2y +2y

$$6y + 4 = 22$$

-4 -4

$$\frac{6y}{6} = \frac{18}{6}$$

$$\boxed{y = 3}$$

Check

$$4(y+1) = 2(11-y)$$
$$4(3+1) = 2(11-(3))$$
$$4(4) = 2(8)$$
$$16 = 16 \checkmark$$

$$3) 3m + 2(m+5) = -9 - 2(m+1)$$

$$(3m) + (2m) + 10 = (-9) - 2m - 2$$

$$5m + 10 = -2m - 11$$

$$7m + 10 = -11$$

$$7m = -\frac{21}{7}$$

$$m = -3$$

Check

$$3m + 2(m+5) = -9 - 2(m+1)$$

$$3(-3) + 2((-3) + 5) = -9 - 2((-3) + 1)$$

$$3(-3) + 2(2) = -9 - 2(-2)$$

$$-9 + 4 = -9 + 4$$

$$-5 = -5 \checkmark$$

Assignment: Solving Math 9 Equations Part 5 Assignment

Name: _____

Solving Math 9 Equations Part 5 Assignment

Solve and check the following equations.

1. $10 = 2(x + 3)$	<u>Check</u>
2. $\frac{3}{4}m - 6 = -3$	<u>Check</u>
3. $\frac{2}{3}y = -\frac{1}{6}$	<u>Check</u>

4. $3(m+1) = 2(m-1)$

Check

5. $-7 + 5y = 1 + 3y$

Check

6. $5 + 2(n+4) = 3 - (n-1)$

Check

7. $3m + \frac{1}{2} = \frac{5}{4}$

Check

8. $2(y - 4) = 3(y - 6)$

Check

9. $\frac{1}{3}n + \frac{1}{6} = \frac{1}{4}$

Check

10. $-6 + 4m - 2 = 1 + 6m + 1$

Check

11. $\frac{1}{2} - y = -\frac{1}{6}$

Check

12. $\frac{1}{2}n + 3 = \frac{1}{3}n + 1$

Check

13. $3 = 8 - (m + 1)$

Check

14. $\frac{3}{4}x - 2 = -8$

Check

15. $5a + 3(a + 5) + 2 = 2(a + 5) + 1$

Check

Answers

1) $x = 2$

2) $m = 4$

3) $y = -\frac{1}{4}$

4) $m = -5$

5) $y = 4$

6) $n = -3$

7) $m = \frac{1}{4}$

8) $y = 10$

9) $n = \frac{1}{4}$

10) $m = -5$

11) $y = \frac{2}{3}$

12) $n = -12$

13) $m = 4$

14) $x = -8$

15) $a = -1$