

Solving Math 8 Equations

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9:12 AM

Mathematics 9 Equation Solving Solving Math 8 Equations

In Mathematics 8 you learned to solve a variety of simple linear equations.

Things to Remember

1. Isolate the variable by doing the opposite what the question suggest.
2. Whatever you do to one side of the equation, you must do the same to the other side.
3. Algebra Rules are opposite of BEDMAS Rules. Add & Subtract first, Divide last.
4. Always do a check to make sure your answer is correct.

Solve and check the following equations.

A. Equation Type #1 (One Step)

1) $x + 4 = 9$
~~4~~ ~~9~~ ~~-4~~

$$x = 5$$

Check

$$\begin{aligned}x + 4 &= 9 \\ (5) + 4 &= 9 \\ 9 &= 9 \checkmark\end{aligned}$$

2) $4 = y + 9$
~~9~~ ~~-9~~

$$\begin{aligned}-5 &= y \\ \text{or} \\ y &= -5\end{aligned}$$

Check

$$\begin{aligned}4 &= y + 9 \\ 4 &= (-5) + 9 \\ 4 &= 4 \checkmark\end{aligned}$$

3) $6 + m = -5$
~~6~~ ~~-6~~

$$m = -11$$

Check

$$\begin{aligned}6 + m &= -5 \\ 6 + (-11) &= -5 \\ -5 &= -5 \checkmark\end{aligned}$$

$$4) -8 = 3 + a$$

$$\boxed{-11 = a}$$

or

$$\boxed{a = -11}$$

Check

$$\begin{aligned} -8 &= 3 + a \\ -8 &= 3 + (-11) \\ -8 &= -8 \checkmark \end{aligned}$$

B. Equation Type #2 (One Step)

$$1) \frac{5}{5}x = \frac{35}{5}$$

$$\boxed{x = 7}$$

Check

$$\begin{aligned} 5x &= 35 \\ 5(7) &= 35 \\ 35 &= 35 \checkmark \end{aligned}$$

$$2) \frac{-4}{-4}n = \frac{36}{-4}$$

$$\boxed{n = -9}$$

Check

$$\begin{aligned} -4n &= 36 \\ -4(-9) &= 36 \\ 36 &= 36 \checkmark \end{aligned}$$

$$3) \frac{-24}{2} = \frac{2t}{2}$$

$$\boxed{-12 = t}$$

or

$$\boxed{t = -12}$$

Check

$$\begin{aligned} -24 &= 2t \\ -24 &= 2(-12) \\ -24 &= -24 \checkmark \end{aligned}$$

Assignment: Solving Math 8 Equations Assignment

Name: _____

Solving Math 8 Equations Assignment

Solve and check the following equations.

1. $x - 5 = 13$	<u>Check</u>
2. $x + 2 = -6$	<u>Check</u>
3. $9 = x - 2$	<u>Check</u>
4. $-12 = x + 4$	<u>Check</u>

5. $3x = 12$	<u>Check</u>
6. $-2x = -6$	<u>Check</u>
7. $-24 = 4x$	<u>Check</u>
8. $-45 = -5x$	<u>Check</u>

9. $9 + x = -15$	<u>Check</u>
10. $-32 = 8x$	<u>Check</u>
11. $-18 = -11 + x$	<u>Check</u>
12. $-9x = -63$	<u>Check</u>

13. $x - 7 = -13$	<u>Check</u>
14. $10x = -40$	<u>Check</u>
15. $-7 + x = -11$	<u>Check</u>
16. $36 = -12x$	<u>Check</u>

17. $x + 11 = 21$	<u>Check</u>
18. $45 = -15x$	<u>Check</u>
19. $16 = -9 + x$	<u>Check</u>
20. $-8x = -88$	<u>Check</u>

Answers

1) $x = 18$

2) $x = -8$

3) $x = 11$

4) $x = -16$

5) $x = 4$

6) $x = 3$

7) $x = -6$

8) $x = 15$

9) $x = -24$

10) $x = -4$

11) $x = -7$

12) $x = 7$

13) $x = -6$

14) $x = -4$

15) $x = -4$

16) $x = -3$

17) $x = 10$

18) $x = -3$

19) $x = 25$

20) $x = 11$