

Name: *Key*

Date:

Topic:

Class:

Main Ideas/Questions	Notes/Examples
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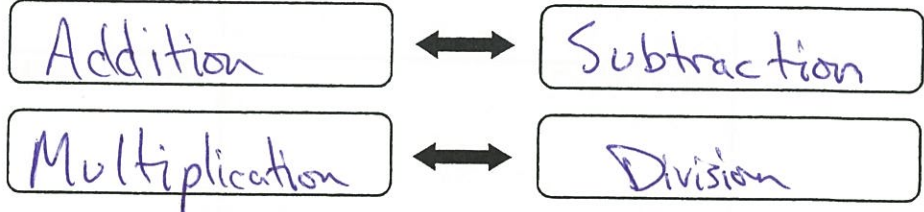
ONE-STEP EQUATIONS

Steps to Solve:

- ① Locate the variable.
- ② Determine the operation tied to the variable.
- ③ Use **inverse operations** on both sides of the equal sign to solve.
- ④ Check your solution!

INVERSE OPERATIONS

Inverse operations can be used to solve equations:



SET I: Addition & Subtraction

Directions: Solve each equation. Check all solutions.

1. $x + 7 = -1$
 $\begin{array}{r} -7 \quad -7 \\ \hline x = -8 \end{array}$

2. $m - 11 = -9$
 $\begin{array}{r} +11 \quad +11 \\ \hline m = 2 \end{array}$

3. $9 = 14 + h$
 $\begin{array}{r} -14 \quad -14 \\ \hline h = -5 \end{array}$

4. $-15 + w = 14$
 $\begin{array}{r} +15 \quad +15 \\ \hline w = 29 \end{array}$

5. $-21 = k - 8$
 $\begin{array}{r} +8 \quad +8 \\ \hline k = -13 \end{array}$

6. $-1 = -4 + v$
 $\begin{array}{r} +4 \quad +4 \\ \hline v = 3 \end{array}$

SET 2: Multiplication & Division

Directions: Solve each equation. Check all solutions.

7. $4a = -24$
 $\begin{array}{r} \frac{-24}{4} \quad \frac{-24}{4} \\ \hline a = -6 \end{array}$

8. $-56 = -7p$
 $\begin{array}{r} \frac{-56}{-7} \quad \frac{-56}{-7} \\ \hline p = 8 \end{array}$

$$9. \frac{n}{5} = 9$$

$$\cancel{5} \cdot \frac{n}{\cancel{5}} = 9 \cdot 5$$

$$n = 45$$

$$10. 2 = \frac{r}{-8}$$

$$\cancel{-8} \cdot 2 = \frac{r}{\cancel{-8}} \cdot \cancel{-8}$$

$$r = -16$$

$$11. \frac{-k}{-1} = 7$$

$$k = -7$$

$$12. \frac{x}{-6} = -12$$

$$\cancel{-6} \cdot \frac{x}{\cancel{-6}} = -12 \cdot \cancel{-6}$$

$$x = 72$$

SET 3:
Mixed Practice

Directions: Solve each equation. Check all solutions.

$$13. x - 11 = -3$$

$$\begin{array}{r} x - 11 = -3 \\ +11 \quad +11 \\ \hline x = 8 \end{array}$$

$$14. -10d = 40$$

$$\begin{array}{r} -10d = 40 \\ \div -10 \quad \div -10 \\ \hline d = -4 \end{array}$$

$$15. a + 15 = 2$$

$$\begin{array}{r} a + 15 = 2 \\ -15 \quad -15 \\ \hline a = -13 \end{array}$$

$$16. 24 = -3 + h$$

$$\begin{array}{r} 24 = -3 + h \\ +3 \quad +3 \\ \hline h = 27 \end{array}$$

$$17. -4 = \frac{m}{-3}$$

$$m = 12$$

$$18. 9 = -y$$

$$y = -9$$

$$19. -47 + w = -10$$

$$\begin{array}{r} -47 + w = -10 \\ +47 \quad +47 \\ \hline w = 37 \end{array}$$

$$20. \frac{p}{9} = -9$$

$$p = -81$$

$$21. -48 = -16a$$

$$\begin{array}{r} -48 = -16a \\ \div -16 \quad \div -16 \\ \hline a = 3 \end{array}$$

$$22. k - 9 = -38$$

$$\begin{array}{r} k - 9 = -38 \\ +9 \quad +9 \\ \hline k = -29 \end{array}$$

$$23. -20 = \frac{v}{-4}$$

$$v = 80$$

$$24. \frac{6n}{6} = 0$$

$$n = 0$$