

Name:

Date:

Topic:

Class:

Main Ideas/Questions	Notes/Examples	
One-Step Equations	1. $m + 12 = 10$ $\quad -12 \quad -12$ \hline $m = -2$	2. $-2 = g - 9$ $\quad +9 \quad +9$ \hline $7 = g$
	3. $\frac{-7y}{-7} = \frac{-91}{-7}$ \hline $y = 13$	4. $\frac{a}{9} = -4 \cdot 9$ \hline $a = -36$
Fractions To "get rid" of a fraction, multiply by the <u>reciprocal</u> !	5. $\frac{3}{2} \cdot \frac{2}{3}x = 10 \cdot \frac{3}{2}$ \hline $x = 15$	6. $\frac{9}{4} \cdot \frac{4}{9}w = -8 \cdot \frac{9}{4}$ \hline $w = -18$
	7. $\frac{-6}{6} \cdot \frac{6}{5}k = 12 \cdot \frac{-5}{6}$ \hline $k = -10$	8. $^{-2} \cdot \frac{1}{2}m = -9 \cdot ^{-2}$ \hline $m = 18$
Two-Step Equations	To Solve a Two-Step Equation: 1. Undo the Addition/Subtraction (to remove constant term) 2. Undo the Multiplication/Division (to remove coefficient)	
	9. $6x + 8 = 50$ $\quad -8 \quad -8$ \hline $6x = 42$ $\quad \frac{6}{6} \quad \frac{6}{6}$ \hline $x = 7$	10. $2n - 5 = 11$ $\quad +5 \quad +5$ \hline $2n = 16$ $\quad \frac{2}{2} \quad \frac{2}{2}$ \hline $n = 8$
	11. $13 = -4k + 9$ $\quad -9 \quad -9$ \hline $4 = -4k$ $\quad \frac{-4}{-4} \quad \frac{-4}{-4}$ \hline $k = -1$	12. $7 - 3y = 34$ $\quad -7 \quad -7$ \hline $-3y = 27$ $\quad \frac{-3}{-3} \quad \frac{-3}{-3}$ \hline $y = -9$

$$13. \frac{x}{2} - 7 = 9$$

$$\begin{array}{r} +7 \quad +7 \\ \hline \end{array}$$

$$2 \cdot \frac{x}{2} = 16 \cdot 2$$

$$\boxed{x = 32}$$

$$14. 11 = \frac{c}{-5} + 8$$

$$\begin{array}{r} -8 \quad -8 \\ \hline \end{array}$$

$$-5 \cdot 3 = \frac{c}{-5} \cdot -5$$

$$\boxed{-15 = c}$$

$$15. \frac{3}{5}x + 22 = 28$$

$$\begin{array}{r} -22 \quad -22 \\ \hline \end{array}$$

$$\frac{5}{3} \cdot \frac{3}{5} x = 6 \cdot \frac{5}{3}$$

$$\boxed{x = 10}$$

$$16. -\frac{1}{3}m + 1 = -7$$

$$\begin{array}{r} -1 \quad -1 \\ \hline \end{array}$$

$$-3 \cdot -\frac{1}{3}m = -8 \cdot -3$$

$$\boxed{m = 24}$$

$$17. -10 + \frac{7}{4}p = -38$$

$$\begin{array}{r} +10 \quad +10 \\ \hline \end{array}$$

$$\frac{4}{7} \cdot \frac{7}{4} p = -28 \cdot \frac{4}{7}$$

$$\boxed{p = -16}$$

$$18. 15 = 9 - \frac{1}{2}x$$

$$\begin{array}{r} -9 \quad -9 \\ \hline \end{array}$$

$$-2 \cdot 6 = -\frac{1}{2}x \cdot -2$$

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

Watch out!

The examples below are different in that the multiplication/division is done FIRST, followed by the addition/subtraction.

$$19. \frac{x+11}{8} = -3 \cdot 8$$

$$\begin{array}{r} x+11 = -24 \\ -11 \quad -11 \\ \hline \end{array}$$

$$\boxed{x = -35}$$

$$20. \frac{n-5}{-2} = -7 \cdot -2$$

$$\begin{array}{r} n-5 = 14 \\ +5 \quad +5 \\ \hline \end{array}$$

$$\boxed{n = 19}$$

$$21. 1 = \frac{a-13}{-6} \cdot -6$$

$$\begin{array}{r} -6 = a-13 \\ +13 \quad +13 \\ \hline \end{array}$$

$$\boxed{7 = a}$$

$$22. 4 = \frac{w+8}{9} \cdot 9$$

$$\begin{array}{r} 36 = w+8 \\ -8 \quad -8 \\ \hline \end{array}$$

$$\boxed{28 = w}$$

Two-step eQuATION Maze!

Directions: Use your solutions to navigate through the puzzle. SHOW ALL STEPS!!!!

