

Multi-Step Equations—Worksheet #2 EXTRA



Find the ONE mistake that was made in each problem and circle it. Then, describe what kind of mistake it was. Then, fix the mistake and finish the problem to the right.



Joe Schmoe

You

1) $8x - 27 - 10 - 6x = 15$ (equation)

$$2x - 27 - 10 = 15 \quad (\text{equation})$$

$$\begin{array}{r} 2x - 17 = 15 \quad (\text{equation}) \\ \underline{+ 17 + 17} \end{array}$$

$$\begin{array}{r} \underline{2x} = \underline{32} \quad (\text{equation}) \\ 2 \quad 2 \end{array}$$

$$x = 16 \quad (\text{equation})$$

Kind of mistake: _____

2) $-3(2x - 3) = 33$ (equation)

$$\begin{array}{r} -6x + 6 = 33 \quad (\text{equation}) \\ \underline{- 6 \quad -6} \end{array}$$

$$\begin{array}{r} \underline{-6x} = \underline{27} \quad (\text{equation}) \\ -6 \quad -6 \end{array}$$

$$x = -4.5 \quad (\text{equation})$$

Kind of mistake: _____

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Silly Sally

You

3) $4(x + 7) = -12$ (equation)

$$4x + 28 = -12 \quad (\text{equation})$$
$$\underline{-28 \quad -28}$$

$$\frac{4x}{4} = \frac{-16}{4} \quad (\text{equation})$$

$$x = -4 \quad (\text{equation})$$

Kind of mistake: _____

4) $-19 + 3x - 11 + 2x = 2$ (equation)

$$5x - 19 - 11 = 2 \quad (\text{equation})$$

$$5x - 30 = 2 \quad (\text{equation})$$
$$\underline{-30 \quad -30}$$

$$\frac{5x}{5} = \frac{-28}{5} \quad (\text{equation})$$

$$x = -5.6 \quad (\text{equation})$$

Kind of mistake: _____

Name _____

Date _____

Two Step Equations in Words Worksheet

Define the variable, write the equation and solve it.

1. Seven less than a number divided by 3 is five.
2. Eleven more than two times a number is 17.
3. Two times a number minus 3 is fifteen.
4. Six less than a number divided by 2 is eight.
5. Seven more than three times a number is twenty-five.
6. Three less than a number divided by 4 is five.
7. Four more than a number divided by 2 is ten.
8. Five times a number minus 4 is six.
9. Two more than four times a number is twenty-six.
10. Three less than five times a number is seventeen.



Multi-Step Equations

Solve each equation.

1) $6a + 5a = -11$

2) $-6n - 2n = 16$

3) $4x + 6 + 3 = 17$

4) $0 = -5n - 2n$

5) $6r - 1 + 6r = 11$

6) $r + 11 + 8r = 29$

7) $-10 = -14v + 14v$

8) $-10p + 9p = 12$

9) $42 = 8m + 13m$

10) $a - 2 + 3 = -2$

11) $18 = 3(3x - 6)$

12) $30 = -5(6n + 6)$

$$13) 37 = -3 + 5(x + 6)$$

$$14) -13 = 5(1 + 4m) - 2m$$

$$15) 4(-x + 4) = 12$$

$$16) -2 = -(n - 8)$$

$$17) -6(1 - 5v) = 54$$

$$18) 8 = 8v - 4(v + 8)$$

$$19) 10(1 + 3b) = -20$$

$$20) -5n - 8(1 + 7n) = -8$$

$$21) 8(4k - 4) = -5k - 32$$

$$22) -8(-8x - 6) = -6x - 22$$

$$23) 8(1 + 5x) + 5 = 13 + 5x$$

$$24) -11 - 5a = 6(5a + 4)$$

Solving Multi-Step Equations

Distributive With Parentheses - Negative Coefficients

Name: _____ Date: _____



Solve the equations.

(1) $39 = 2x - 5(-3x + 16)$

(2) $198 = -4x + 2(-6x + 3)$

(3) $6x - 2(-3x - 5) = 154$

(4) $180 = 7x - 3(-6x + 15)$

(5) $-4x + 3(-3x - 2) = 59$

(6) $-3 = 3x + 6(-x + 3)$

(7) $7x + 2(5x - 16) = 70$

(8) $-6x - 4(-7x - 13) = -58$

(9) $14 = -3x - 2(-3x + 11)$

(10) $7x - 2(3x + 16) = -23$

Student Name: _____

Score: _____

Solve the Two-Step Equations – Fractions

$$\frac{3}{2}x + \frac{1}{5} = \frac{3}{4}$$

$$\frac{4 + m}{3} = \frac{5}{6}$$

$$\frac{3}{7} - \frac{1}{4}y = \frac{1}{2}$$

$$\frac{1}{2}(4 - k) = \frac{2}{5}$$

$$\frac{p}{2} = \frac{3}{4} + \frac{p}{3}$$

$$\frac{3}{4} + a = \frac{5}{6} - \frac{1}{2}x$$

Name: _____
Homework # _____

Fractions in Equations

**Remember: The algebra rules haven't changed.
Just focus on the fractions. Get a common denominator
to add or subtract fractions.**

1. $\frac{1}{6} + \frac{7}{12}$

2. $\frac{2}{3} - \frac{3}{8}$

3. $\frac{-11}{15} + \frac{2}{5}$

4. $\frac{3}{4}x + 8 = 11$

5. $\frac{2}{3} + x = \frac{4}{3}$

6. $y - \frac{6}{8} = \frac{5}{8}$

7. $m + \frac{19}{5} = \frac{4}{5}$

8. $3x + \frac{1}{2} = \frac{5}{2}$

9. $2z - \frac{8}{7} = \frac{6}{7}$

10. $\frac{1}{20} = c + \frac{3}{4}$

11. $\frac{1}{4} + x = \frac{1}{8}$

12. $-4x = \frac{4}{5}$

13. $\frac{2}{3} = 2d + \frac{1}{6}$

14. $\frac{2}{5}z - 2 = \frac{1}{5}$

15. $\frac{5}{6} + 5y = \frac{5}{2}$

One-Step Equations With Fractions

Solve each equation.

1) $5\frac{1}{2} + p = 6$

2) $m - 1\frac{1}{2} = -\frac{5}{4}$

3) $-\frac{3}{4}b = 2$

4) $x - 3 = -5\frac{1}{2}$

5) $x - \frac{1}{2} = 1\frac{1}{4}$

6) $x - 1\frac{1}{4} = -6$

7) $2\frac{1}{10}n = 1\frac{1}{6}$

8) $9\frac{1}{3} = \frac{5}{3}n$

9) $5\frac{2}{7} + k = 2\frac{27}{70}$

10) $2\frac{5}{12} = -3\frac{1}{4} + k$