

Two Step Equations

(Integers)

When Solving a Two-Step Equation, remember to...

- Use Inverse Operations!!
- Isolate the Variable
 - 1) Add or Subtract
 - 2) Multiply or Divide



• What you do to one side, make sure you do to the other (You must keep the equation balanced!!)

Solve, and don't forget to show all of your work!

$$\begin{array}{l}
 2w + 3 = 9 \\
 \underline{-3} \quad \underline{-3} \\
 2w = 6 \\
 \underline{\div 2} \quad \underline{\div 2} \\
 w = 3
 \end{array}$$

Checklist

- Adding or Subtract
- Multiply or Divide
- Check your work!!

$$\begin{array}{l}
 2w + 3 = 9 \\
 2(3) + 3 = 9 \\
 6 + 3 = 9 \\
 9 = 9 \checkmark
 \end{array}$$

Solve, and don't forget to show all of your work!

$$\begin{array}{l}
 3p - 10 = 8 \\
 \underline{+10} \quad \underline{+10} \\
 3p = 18 \\
 \underline{\div 3} \quad \underline{\div 3} \\
 p = 6
 \end{array}$$

Checklist

- Adding or Subtract
- Multiply or Divide
- Check your work!!

Solve, and don't forget to show all of your work!

$$\begin{array}{l}
 \frac{d}{4} - 9 = 3 \\
 \underline{+9} \quad \underline{+9} \\
 \frac{d}{4} = 12 \cdot 4 \\
 \underline{\cdot 4} \quad \underline{\cdot 4} \\
 d = 48
 \end{array}$$

Checklist

- Adding or Subtract
- Multiply or Divide
- Check your work!!

Solve and check your work!!

$$\begin{array}{l}
 -y + 14 = -31 \\
 \underline{-14} \quad \underline{-14} \\
 -y = -45 \\
 \underline{\cdot (-1)} \quad \underline{\cdot (-1)} \\
 y = 45
 \end{array}$$

$$\begin{array}{l}
 -2 + \frac{x}{7} = -9 \\
 \underline{+2} \quad \underline{+2} \\
 \frac{x}{7} = -11 \cdot 7 \\
 \underline{\cdot 7} \quad \underline{\cdot 7} \\
 x = -77
 \end{array}$$

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 x = -77
 \end{array}$$

How to Solve "Tricky" Two Step Equations

- 1) Multiply first to eliminate the fraction.
- 2) Add or subtract.
- 3) Multiply or divide.

$$\frac{15}{1} \cdot \frac{3+k}{15} = 1 \cdot 15$$

$$3+k = 15$$

$$-3 \quad -3$$

$$k = 12$$

Solve.

$$\frac{-14}{1} \cdot \frac{b-9}{-14} = -3 \cdot -14$$

$$b-9 = +42$$

$$+9 \quad +9$$

$$b = 51$$

$$\frac{-2}{5} = \frac{x+4}{5}$$

$$-10 = x+4$$

$$-4 \quad -4$$

$$-14 = x$$

How to Solve Two Step Equations with Radicals

Solve

$$x^2 + 4 = 13$$

$$-4 \quad -4$$

$$\sqrt{x^2} = \sqrt{9}$$

$$x = \pm 3$$

$$x^3 - 9 = 17$$

$$+9 \quad +9$$

$$\sqrt[3]{x^3} = \sqrt[3]{26}$$

$$x = 2$$

Warm up 10/26

Create a decimal that has a value between

$$\frac{5}{12} \text{ and } \frac{11}{25}$$

$$.41\bar{6} \quad .44$$

Attachments

PM2-8.pdf