

Starter

12 September 2018

SOLVE.

1. $x - 3 = 10$

$$\begin{array}{r} x - 3 = 10 \\ +3 \quad +3 \\ \hline x = 13 \end{array}$$

$$\boxed{x = 13}$$

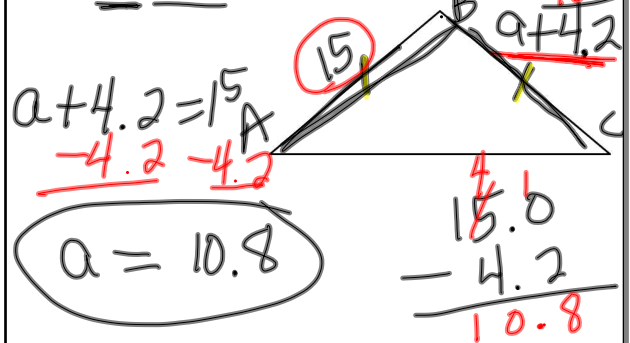
2. $\frac{-5}{-2} = \frac{-2}{-2}$

$$\frac{5}{2} = 4$$

2.5

2½

- The triangle below is isosceles with sides AB and BC being congruent. Side AB = 15 and side BC = $a + 4.2$. Find the value of a .



- A mother holds her baby and steps on a scale. She and the baby weigh 147 pounds. Alone, the mother weighs 129 pounds. How much does the baby weigh?

$$m + b = 147 \quad m = 129$$

$$129 + b = 147$$

$$\begin{array}{r} 147 \\ -129 \\ \hline 18 \text{ pounds} \end{array}$$

- Brennan withdrew \$25 from his bank account at an ATM. The transaction slip said the remaining balance was now \$243.19. Write and solve an equation to find Brennan's previous balance.

$$P - 25 = 243.19$$

$$25 + 243.19 = P$$

$$\$268.19 = P$$

Solving Multi-Step Equations

- Steps for Solving Multi-Step Equations

- SIMPLIFY**
- Clear any decimals/fractions.
 - Use the Distributive Property to remove parentheses on each side.
 - Combine like terms on each side.
 - Undo addition or subtraction.
 - Undo multiplication or division.

Solving Multi-Step Equations

- Combining Like Terms to solve an equation.

$$\begin{aligned} & \bullet 2c + 6 + 12 = 78 \\ & 3c + 18 = 78 \\ & \quad \underline{-18} \quad \underline{-18} \\ & 3c = 60 \\ & \quad \underline{\quad} \quad \underline{\quad} \\ & c = 20 \end{aligned}$$

$$\begin{aligned} & \bullet 4b + 16 + 2b = 46 \\ & 6b + 16 = 46 \\ & \quad \underline{-16} \quad \underline{-16} \\ & 6b = 30 \\ & \quad \underline{\quad} \quad \underline{\quad} \\ & b = 5 \end{aligned}$$

Solving Multi-Step Equations

- Solve each equation. Check your answer.

$$\begin{aligned} & \bullet 3x - 4x + 6 = -2 \\ & -x + 6 = -2 \\ & \quad \underline{-6} \quad \underline{-6} \\ & -x = -8 \\ & \quad \underline{-1} \quad \underline{-1} \\ & x = 8 \end{aligned}$$

$$\begin{aligned} & \bullet -3z + 8 + (-2z) = -12 \\ & -5z + 8 = -12 \\ & \quad \underline{-8} \quad \underline{-8} \\ & -5z = -20 \\ & \quad \underline{-5} \quad \underline{-5} \\ & z = 4 \end{aligned}$$