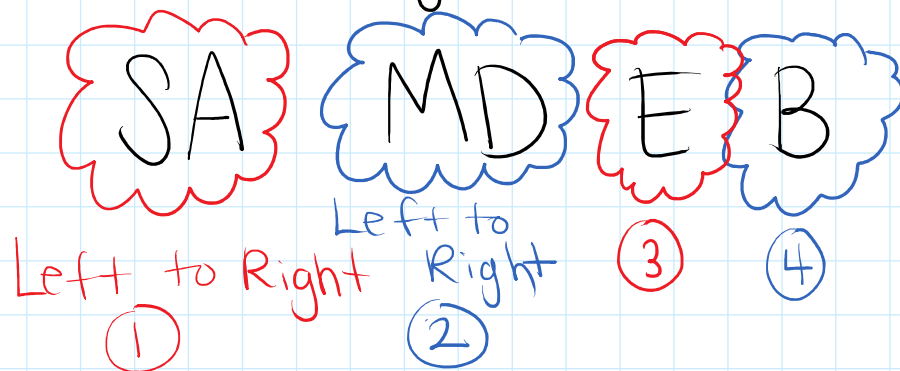


★ When solving Equations, do the OPPOSITE of what you see.

★ Work through "backwards" BEDMAS!



One-Step Equations

1. When you see addition,
you do subtraction.

$$\begin{array}{r} x + 8.3 = 21.5 \\ - 8.3 \quad - 8.3 \\ \hline x = 13.2 \end{array}$$

2. When you see subtraction,
you do addition.

$$\begin{array}{r} 41.9 = x - 22.2 \\ + 22.2 \quad + 22.2 \\ \hline 64.1 = x \end{array}$$

3. When you see Division,
you do multiplication.

$$\begin{array}{r} \left(\frac{x}{7}\right)(7) = (-5)(7) \\ \hline x = -35 \end{array}$$

★ division will look like
a FRACTION ★

★ use brackets to
show multiply ★

★ use brackets to show multiply★

4. When you see Multiplication, you do **DIVISION**.

← # stuck to variable
★ coefficient gets multiplied to variable★

$$\begin{array}{r} 1 \\ -8.1x = -42 \\ \div -8.1 \quad \div -8.1 \end{array}$$

$$x = 5.2$$

Two-Step Equations

SA MD E B
① ② ③ ④

1. When you see **Multiplication** and either **addition** or **subtraction**, you do the **addition** or **subtraction** first.

$$\begin{array}{r} 3x + 6 = 24 \\ -6 \quad -6 \end{array}$$

$$\begin{array}{r} 3x = 18 \\ \div 3 \quad \div 3 \end{array}$$

$$x = 6$$

$$\begin{array}{r} 30 = 5x - 10 \\ +10 \quad +10 \end{array}$$

$$\begin{array}{r} 40 = 5x \\ \div 5 \quad \div 5 \end{array}$$

$$8 = x$$

2. When you see **division** and either **addition** or **subtraction**, you do the **addition** or **subtraction** first.

$$\begin{array}{r}
 12 = \frac{x}{3} + 5 \\
 -5 \quad | \quad -5 \\
 (3)7 = \frac{x}{3}(3) \\
 \boxed{21 = x}
 \end{array}$$

$$\begin{array}{r}
 \frac{x}{4} - 2 = -10 \\
 +2 \quad | \quad +2 \\
 \frac{x}{4}(4) = -8(4) \\
 \boxed{x = -32}
 \end{array}$$

3. When you see a coefficient in front of Brackets, you divide by the coefficient first. Then you solve what was in the brackets.

$$\begin{array}{r}
 5(x-2) = -15 \\
 \div 5 \quad | \quad \div 5 \\
 x-2 = -3 \\
 +2 \quad | \quad +2 \\
 \boxed{x = -1}
 \end{array}$$

$$\begin{array}{r}
 -4(2x+1) = 16 \\
 \div -4 \quad | \quad \div -4 \\
 2x+1 = -4 \\
 -1 \quad | \quad -1 \\
 2x = -5 \\
 \div 2 \quad | \quad \div 2 \\
 \boxed{x = -2.5}
 \end{array}$$