Essential Question: What are the best steps to take when solving a multi-step equation?

1. Simplify each side of the equation
2. Add or subtract to get x on one side.
3. Solve by undoing.

Examples:

Solve each equation. Show work!

A) $3(x + 7) = 5x + 27$

\[
3x + 21 = 5x + 27
\]

\[
-3x
\]

\[
21 = 2x + 27
\]

\[
-27
\]

\[
-6 = 2x
\]

\[
2
\]

\[
2
\]

\[
-3 = x
\]

B) $6x + 10 - 2x = 18 + 7x$

\[
3x + 10 = 18 + 7x
\]

\[
-3x
\]

\[
10 = 18 + 4x
\]

\[
-18
\]

\[
-8 = 4x
\]

\[
4
\]

\[
-2 = x
\]

C) $-62 = -2x + 3 - 7x - 20$

\[
-62 = -9x - 17
\]

\[
+17
\]

\[
-45 = -9x
\]

\[
-9
\]

\[
5 = x
\]