

Solving Equations with variables on both sides

- 1) Distribute (if needed)
- 2) combine like terms
- 3) choose side that you want variables to be on.
- 4) solve using inverse operations

$$\text{Ex. } 7n - 5 = 10n + 13$$

$$\begin{array}{r} -10n \quad -10n \\ \hline \end{array}$$

$$\begin{array}{r} -3n - 5 = 13 \\ +5 \quad +5 \\ \hline \end{array}$$

$$\begin{array}{r} -3n = 18 \\ -3 \quad -3 \\ \hline \end{array}$$

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$$\boxed{n = -6}$$

check

$$7(-6) - 5 = 10(-6) + 13$$

$$-42 - 5 = -60 + 13$$

$$-47 = -47 \checkmark$$

yes!

$$\text{Ex. } 4(y + 3) = 8y$$

$$\begin{array}{r} 4y + 12 = 8y \\ -4y \quad -4y \\ \hline \end{array}$$

$$\begin{array}{r} 12 = 4y \\ 4 \quad 4 \\ \hline \end{array}$$

$$\boxed{3 = y}$$