

### Daily Quiz

solve the following:  $2(x+3) - 5 = 11$

$$2x + 6 - 5 = 11$$

$$2x + 1 = 11$$

$$\begin{array}{r} -1 \quad -1 \\ \hline \end{array}$$

$$\frac{2x}{2} = \frac{10}{2}$$

$$\boxed{x = 5}$$



Unit 1:  
A.CED.1

One variable Multi-Step  
Equations

**Objective:**

Students will be able to:

- solve a multi-step equation
- justify multi-step equations

## Steps to solving an equation:

**Goal: Isolate the variable**

1st: If parenthesis, use distributive property

2nd: Combine like terms on each side of the equal sign

3rd: Get all variables *to one side* of the equation

4th: Get all numbers to the other side of the equation

5th: Multiply by the reciprocal in front of the variable

### 1 Example

$$8x - 7x - 2 = -9$$

Steps/Reason

$$\begin{array}{l} \textcircled{1} \quad x - 2 = -9 \\ \textcircled{2} \quad \underline{+2 \quad +2} \\ \quad \quad x = -7 \end{array}$$

\textcircled{1} Combine like terms  
\textcircled{2}  $\oplus$  Prop.  $\ominus$

## 2 Example

$$5p - 14 - 8p = 4$$

Steps/Reason

~~SKIP~~

## 3 Example

$$2(4x-3) - 8 - 2x = 4$$

Steps/Reason

①  $8x - 6 - 8 - 2x = 4$

① Dist. prop.

②  $6x - 14 = 4$   
 $\quad \quad \quad +14 \quad +14$

② Combine like terms

③  $\frac{6x}{6} = \frac{18}{6}$

③  $\div$  prop.  $\Rightarrow$

④  $x = 3$

④  $\div$  prop  $\Rightarrow$