

**HW:** 2.2/1-4, 9, 10, 14, 15  
2.3/7, 8, 13-16, 19, 20, 30-32

**Reminder:**  
**SHOW ALL WORK**

### Warm up:

Evaluate the expressions if  $x = -3$

1)  $3x + 5$

$$3(-3) + 5 = -9 + 5 = -4$$

2)  $9 - 2x$

$$9 - 2(-3) = 9 + 6 = 15$$

3)  $x - 12$

$$-3 - 12 = -15$$

$$x + 7 = 2$$

$$\begin{array}{r} -7 \quad -7 \\ \hline \end{array}$$

$$x = -5$$

$$x - 9 = 4$$

$$\begin{array}{r} +9 \quad +9 \\ \hline \end{array}$$

$$x = 13$$

$$\begin{array}{r} -3x = 12 \\ \hline -3 \quad -3 \\ \hline \end{array}$$

$$x = -4$$

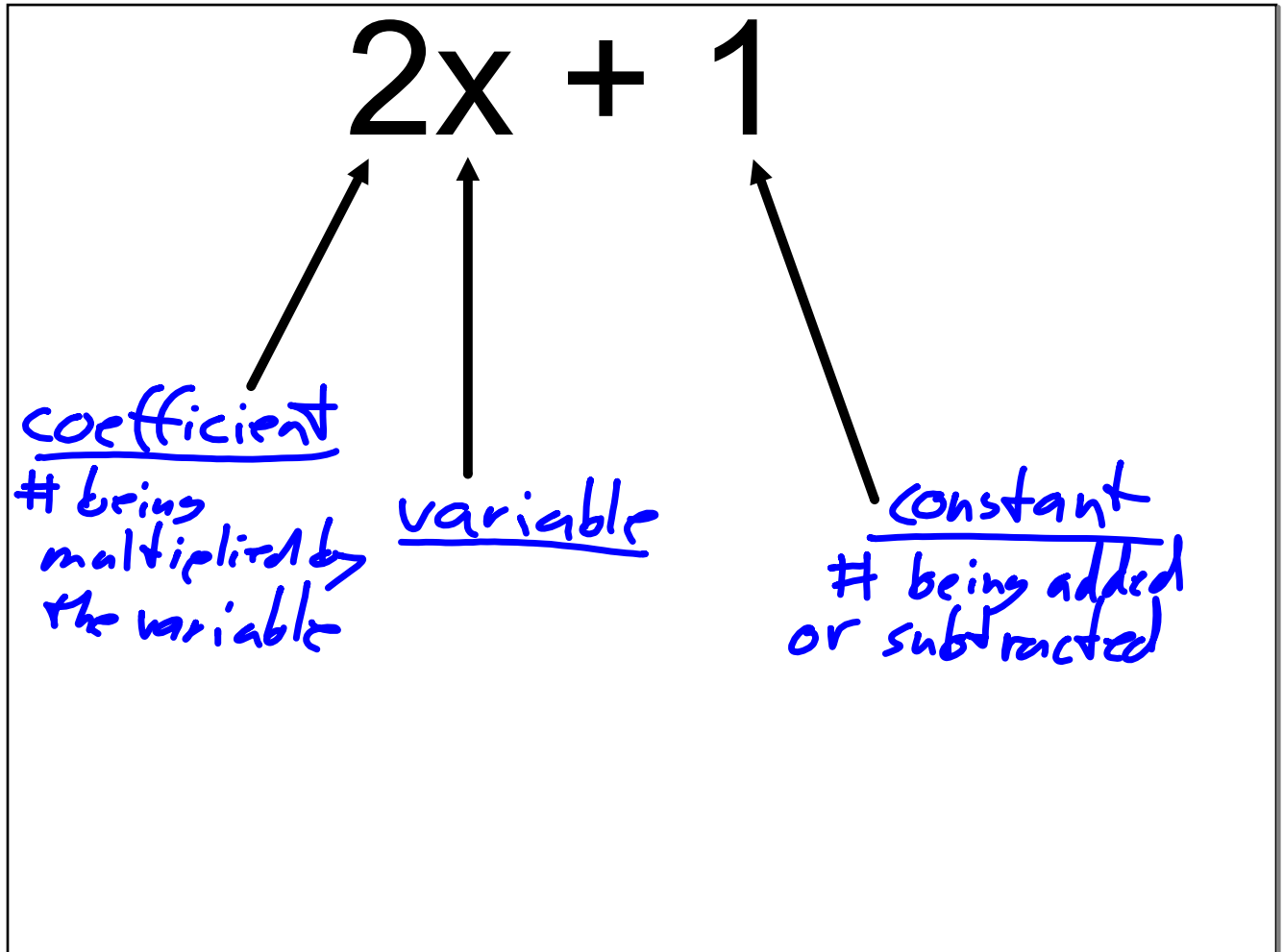
$$2 \left( \frac{x}{2} \right) = (5) 2$$

$$x = 10$$

## Inverse Operations

~~+~~ / ~~-~~

~~×~~ / ~~÷~~



$$2x + 1 = 7$$

$$\begin{array}{r} -1 \quad -1 \\ \hline 2x = 6 \\ \hline \end{array}$$

$$x = 3$$

$$2x + 1 = 7$$

$$\frac{2x}{2} + \frac{1}{2} = \frac{7}{2}$$

$$x + \frac{1}{2} = \frac{7}{2}$$

$$-\frac{1}{2} \quad -\frac{1}{2}$$

$$\frac{x}{1} = \frac{6}{2} = 3$$

$$2 \times \frac{c}{2} = 6 \quad \times 2 \quad \frac{c}{2} + 5 = 11$$

$$\frac{c}{2} = 6$$

$$2 \left( \frac{c}{2} \right) = (6) 2$$

$$c = 12$$

$$\begin{array}{r} 3 + 2x = 11 \\ -3 \quad \downarrow \quad -3 \\ \hline 2x = 8 \\ \hline x = 4 \end{array}$$

$$\begin{array}{r} -5 + 3x = 1 \\ +5 \qquad +5 \\ \hline 3x = 6 \\ \frac{3x}{3} = \frac{6}{3} \\ x = 2 \end{array}$$



$$\begin{array}{r} -x + 3 = 12 \\ \underline{-3 \quad -3} \\ -x = 9 \\ \underline{-1 \quad -1} \\ x = -9 \end{array}$$

$$\begin{array}{l} -x = 9 \\ \times (-1) \times (-1) \\ x = -9 \end{array}$$

$$\begin{array}{r} 5 - 2x = -7 \\ -5 \quad -5 \\ \hline -2x = -12 \\ -2 \quad -2 \\ \hline X = 6 \end{array}$$

$$1) a - 9 = 45$$

$$5) 17 + 2.6n = 30$$

$$2) \frac{x}{5} = -12$$

$$6) -20 = 7 + \frac{x}{2}$$

$$3) -2p = 1$$

$$7) -x - 4 = 13$$

$$4) -6b + 10 = -14$$

$$8) 8 - x = -2$$

$$1) a - 9 = 45$$

+9 +9

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$$a = 54$$

$$52) \frac{x}{5} = (-12)5$$

$$x = -60$$

$$3) \frac{-2p}{-2} = \frac{1}{-2}$$

$$p = -\frac{1}{2}$$

$$\begin{array}{r} 4) -6b + 10 = -14 \\ \quad -10 - 10 \\ \hline -6b = -24 \\ \quad -6 \quad -6 \\ \hline b = 4 \end{array}$$

$$5) 17 + 2.6n = 30$$

$$\begin{array}{r} -17 \quad -17 \\ \hline 2.6n = 13 \\ \hline 2.6 \quad 2.6 \\ \hline n = 5 \end{array}$$



$$6) -20 = 7 + \frac{x}{2}$$

$$-7 -7$$

$$2(-27) = \left(\frac{x}{2}\right) 2$$

$$-54 = x$$

$$7) -x - 4 = 13$$

4 1 4

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$$-x = 17$$

$$\times(-1) \quad \times(-1)$$

$$x = -17$$

$$8) 8 - x = -2$$

$$\begin{array}{r} -8 \quad -8 \\ \hline \end{array}$$

$$\begin{array}{r} -x = -10 \\ \hline -1 \quad -1 \end{array}$$

$$x = 10$$

$$\frac{3}{2} \left( \frac{2}{3} x \right) = \frac{27}{1} \frac{3}{1}$$

$$x = 81$$

$$\frac{4}{5}x = 16$$

$$\frac{x - 5}{2} = 15$$

$$-\frac{2}{3}x = 20$$

$$4 = \frac{6 + 3n}{9}$$

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