

BE-Algebra I | WEDNESDAY 9-16-09

① Does Adding 2 odd numbers give you an odd or even number? Always?
How about adding 2 even numbers?

② Evaluate: $\left(\frac{2}{3} + \frac{1}{2}\right) - \left|-\frac{5}{6}\right|$

SOLVE ③ $\frac{4}{5}x + 2 = -3$

• Homework Review: Page 146 # 43 to 46.

1.
Look over this equation. What is different about it (than any others we have solved so far)?

$$-2 + 10x = 8x - 1$$

Right! There are variables on both sides of the equation.

Step 1 $\Rightarrow$ Get the variables together. Use GRE.

$$\begin{array}{r} -2 + 10x = 8x - 1 \\ -10x \quad -10x \end{array}$$

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

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

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

$$\boxed{x = \frac{1}{2}}$$

OR

$$\begin{array}{r} -2 + 10x = 8x - 1 \\ -8x \quad -8x \end{array}$$

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

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

$$\boxed{x = \frac{1}{2}}$$

☺ I like this way better.

$$\textcircled{\text{EX}} \quad 6x + 7 = 8x - 13$$

$$\begin{array}{r} -6x \qquad \qquad -6x \end{array}$$

$$7 = 2x - 13$$

$$\begin{array}{r} +13 \qquad \qquad +13 \end{array}$$

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

$$10 = x$$

$$\therefore \boxed{x = 10}$$

$$\underline{\text{CK}} \quad 6(10) + 7 \stackrel{?}{=} 8(10) - 13$$

$$60 + 7 \stackrel{?}{=} 80 - 13 \quad \checkmark$$

$$\textcircled{\text{EX}} \quad 75 - 9x = 5(-4 + 2x)$$

$$75 - 9x = 5(-4 + 2x)$$

$$75 - 9x = -20 + 10x$$

$$\begin{array}{r} +9x \qquad \qquad +9x \end{array}$$

$$75 = -20 + 19x$$

$$\begin{array}{r} +20 \qquad \qquad +20 \end{array}$$

$$\frac{95}{19} = \frac{19x}{19}$$

$$5 = x$$

$$\therefore \boxed{x = 5}$$

$$\underline{\text{CK}} \quad 75 - 9(5) \stackrel{?}{=} 5(-4 + 2(5))$$

$$30 \stackrel{?}{=} 5(6) \quad \checkmark$$

$$\textcircled{\text{Ex}} \quad \frac{x+1}{8} = \frac{x}{4}$$

$$\cancel{8} \cdot \frac{x+1}{\cancel{8}} = \frac{x}{4,} \cdot \cancel{8}^2$$

$$\begin{array}{rcl} x+1 & = & 2x \\ -x & & -x \end{array}$$

$$1 = x \quad \therefore \boxed{x=1}$$

$$\underline{\text{OK}} \quad \frac{(1)+1}{8} \stackrel{?}{=} \frac{1}{4} \quad \checkmark$$

Homework: Pg. 152 # 16 to 20, 26
