

February 9, 2015

Distributing Tool

$$a \cdot (b + c) = a \cdot b + a \cdot c$$

Left side *Right side*

$$3(5 + 2) = 3(5) + 3(2)$$

$$= 15 + 6$$

$$3(7) = 21$$

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

$$= 36 + (-12)$$

$$= 4(6) = 24$$

Feb 9-9:12 AM

$$\textcircled{1} \quad 2(x + 8) = 12$$

$$\textcircled{2} \quad 2(x) + 2(8) = 12 \text{ Dist.}$$

$$\textcircled{3} \quad 2x + 16 = 12 \text{ Combine}$$

$$\quad \quad \quad -16 \quad \quad -16$$

$$\textcircled{4} \quad \frac{1}{2}x = -4 \cdot \frac{1}{2} \text{ a. } \downarrow$$

$$\textcircled{5} \quad x = -\frac{4}{2} \text{ m. } \downarrow$$

$$\boxed{x = -2}$$

Feb 9-9:21 AM

Do 2.4

Feb 9-9:29 AM

Division 2.5

Question: If the product is negative, then what must be true?

$$\textcircled{1} \quad + \cdot (-) = - \text{ Product}$$

$$\textcircled{2} \quad \begin{array}{l} \text{a.) } (+) \cdot (+) = + \text{ Product} \\ \text{b.) } (-) \cdot (-) \end{array}$$

Feb 9-9:29 AM

$$24 \div 4 = x$$

$$\frac{4}{1} \cdot \frac{24}{4} = x$$

$$24 = x \cdot \frac{4}{1}$$

$$\boxed{24} = \boxed{4} \cdot x$$

+ Product *Pos. →*

Feb 9-9:35 AM

$$-45 \div -5 = x$$

$$\frac{-5}{1} \cdot \frac{-45}{-5} = x \cdot \frac{-5}{1}$$

$$\boxed{-45} = x \cdot \boxed{-5}$$

neg. *neg.*

Feb 9-9:39 AM

- ① Division of two numbers with the same sign gives a positive result.
- ② Division of opposite sign gives us a negative result.

Feb 9-9:43 AM

$$0 \div 5 = x$$
$$\frac{5}{1} \cdot \frac{0}{5} = x \cdot \frac{5}{1}$$
$$\boxed{0} = \boxed{x} \cdot 5$$

Product zero

$$x = 0!$$

Feb 9-9:45 AM