

August 26, 2015

Use Tools to Solve

- ① $8 - 2(a+1) = 9 + a$
- ②
$$\begin{array}{r} +0 \\ 8 - 2a - 2 = 9 + a \\ \hline 10 - 2a = 9 + a \end{array}$$
 Dist. & Add
- ③ $(8 - 2a) - 2 = 9 + a$ assoc.
- ④ $(-2a + 8) - 2 = 9 + a$ Comm.
- ⑤ $-2a + (8 - 2) = 9 + a$ add
- ⑥
$$\begin{array}{r} -2a + 6 = 9 + a \\ +2a - 9 = -9 + 2a \\ \hline 0 - 3 = 0 + 2a \end{array}$$
- ⑦ $0 - 3 = 0 + 2a$ Add

$$\frac{-3}{3} = \frac{2a}{3} \text{ All } \downarrow$$

$$\boxed{-1 = a}$$

Ch

$$8 - 2(-1 + 1) = 9 + (-1)$$

$$8 - 2(0) = 8$$

$$8 = 8 \checkmark \text{ true}$$

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$$8 + (-8) = 0$$

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* My Algebra Success
Guide #1 - Due
Monday

Distributing Tool

$$a(b+c) = ab + ac$$

* What do I know
and what do I need
to know to fully
understand this
concept?

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* Math Jam Fridays

12:00 pm - 2:00 pm

Rm 320

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$2 < 5$ true!

* Order Principle

$a * b$

↑

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$$2 \cdot 100,000 + 5 \cdot 10,000$$

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Comm: $a + b = b + a$

$$x(-6) = 8$$

$+6$ $+6$

$$x = 14$$

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$$\frac{20}{20} = 100$$

~~#2~~

$$-2 \neq 3$$

$$\frac{13}{20} = 65$$

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- ① $5(-6)(2+b) = 1b - 14$
- ② $5(-12 - 6b) = b - 14$ *Dist & A.D.*
- ③ $(5-12) - 6b = b - 14$ *assoc.*
- ④
$$\begin{array}{r} -7 - 6b = 1b - 14 \\ +14 \quad +6b \quad +6b \quad +14 \\ \hline 7 + 0 = 7b + 0 \text{ A.D.} \end{array}$$

ch $b=1$

$$\frac{7}{7} = \frac{7b}{7} \text{ m.d.}$$

$$1 = b \checkmark$$

$$5 - 6(1+2) = 1 - 14$$

$$\Rightarrow -6(3) = -13$$

$$5 + (-18) = -13$$

$$-13 = -13 \checkmark$$


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Order of Operations

- ① Clear Grouping Symbols $(), [], \{ \}, | \cdot |, \frac{a}{b}, \sqrt{a}$
- ② Evaluate Exponents $5^3 = 5 \cdot 5 \cdot 5 = 25 \cdot 5 = 125$
- ③ Multiplication or Division *which ever comes first from Left to Right*
 $(4 \div 2) \cdot 6$
 $\begin{array}{r} 2 \cdot 6 \\ \hline 12 \end{array}$
 $4 \div 2 = 2$
 $2 \cdot 6 = 12$
 $\frac{1}{3}$
- ④ Addition or Subtraction *which ever comes first from left to right.*

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Whole: $\{0, 1, 2, 3, \dots\}$
 Integers: $\{\dots, -2, -1, 0, 1, 2, \dots\}$



Add

- ① Number w/ Same "sign"
 * Add & keep the sign
 $-5 + 6 = 11$
 $-5 + (-6) = -11$
- ② Opposite Signs: determine larger number & subtract smaller from larger
 $5 + (-6)$
 $|5| \quad | -6 |$
 $5 \quad 6$
 $6 - 5 = -1$

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