

August 29, 2016  
 \* Quiz #2 - Wednesday  
 \* Office Hours - 7m 740  
 \* Math Jan Today - 320  
 12:00 - 2:00

Aug 29-9:57 AM

Algebra Power Tools

- Commutative Prop.  
 $a + b = b + a$
- Associative Prop.  
 $a + (b + c) = (a + b) + c$
- Distributive Prop.  
 $a(b + c) = ab + ac$   
*Multiplication over addition*

$2(3 + 4y) = 6 + 8y$   
 $7(2x - 1) = 14x - 7$

Aug 29-10:29 AM

- $(3x + 4) - (6 + 4x)$   
*unlike terms*
- $3x + 4 - 6 - 4x$  Dist
- $3x - 2 - 4x$  assoc.
- $3x - 4x - 2$  comm
- $(3x - 4x) - 2$  assoc.
- $-x - 2$

Aug 29-10:35 AM

④ Additive Inverse  
 $a + (-a) = 0$   
*result is always zero.*

$7 + (-7) = 0$   
 $-\frac{3}{4} + \frac{3}{4} = 0$

$8x + 10 = 20$   
 $8x + 0 = 10$   
 $8x = 10$

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⑤ Multiplicative Inverse  
*result is always "1"*

$\frac{a}{1} \cdot \frac{1}{a} = 1$   
*M.I.*

$1 = \frac{8x}{8} = \frac{10}{8}$   
 $x = \frac{5}{4}$

$\frac{1}{8} \cdot \frac{8}{1} = 1$

Aug 29-10:47 AM