

Concept Check:

1) what are "grouping symbols?"

2) Calculator:

$$2 + 12/4$$

$$(2+10)/4$$

3) With your partner, write a definition for:

expression

equation

inequality

evaluate

simplify

solve

HW issues? (Write # on board you would like to go over):

1-3: Basic Properties of Real Numbers

OBJECTIVE:

To identify all properties of equality and field properties of real numbers

Properties of Equality:

<u>NAME</u>	<u>PROPERTY</u>
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Reflexive

Symmetric

Transitive

Addition

Multiplication

FIELD PROPERTIES-true for set of reals

<u>NAME</u>	<u>PROPERTY</u>	<u>EX:</u>
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Commutative	(+)	
	(*)	

Associative	(+)	
	(*)	

Identity	(+)	
	(*)	

INVERSE:

Opposites

(-a is additive inverse of a)

Reciprocals

($\frac{1}{a}$ is multiplicative inverse of a)

Distributive

For all real numbers $a, b, c...$

Closure: $x + y = a$ unique real number

$x \cdot y = a$ unique real number

ex. $x = 12, y = 6$

****Can you think of any two real numbers that, when you add them, are not real?***

Try this:

Given each set, determine if it is **CLOSED** under: addition, subtraction, multiplication, and division

a) $\{0, 1, 2, 3, \dots\}$

+

-

*

÷

b) $\{-1, 1\}$

+

-

*

÷

c) $\{\text{Integers}\}$

+

-

*

÷

*HW: p. 17 #3,9,13,15,17,21,25,29,33
Study for QUIZ 1.1-1.6 (not 1.3)*