S-A1 Algebra 1 Sessim 5 6/25

1.) $-9-6 = -15$

$-9 + (-6) = -15$

2.) $9-6$ (3)

$9 + (-6)$

3.) $9-(-6)$

$9 + 6 = 15$

4.) $-9-(-6) =$

$-9 + 6 = -3$

5.) $7-11 = -4$

$7 + (-11) = -4$

6.) $-7-11 = -18$

$-7 + (-11)$

7.) $-7-(-11)$

$-7 + 11 = 4$

8.) $7-(-11) = 18$

$7 + 11$

$- \downarrow +$ $+ (-)$ $- (-)$

$\downarrow$ $\downarrow$ $\downarrow$

$-$ $-$ $+$

1.) $-7 * 6 = -42$

2.) $7 * (-6)$ -42

3.) $7 * 6$ 42

4.) $-7 * (-6) = 42$

5.) $-3 * (-12)$ 36

6.) $3 * (-12)$ -36

7.) $3 * 12$ 36

8.) $-3 * 12$ -36

$(-2)(-2)(-2)(2)(2)(-2) = 64$

Even # of negatives $\rightarrow +$

1.) $3(2x-8)$

$6x-24$

$3(2s+8r)$

$6s+24r$

2.) $-(4x+6)$ $\quad -4x-6$

↑ opposite

3.) $2(9x-3)+12$

$18x-6+12$ same as $18x+(-6)+12$

$18x+6$

4.) $-3(4x+7)-9(2x-3)$

$-12x-21-18x+27$

$-30x+6$

$8(3x-5)$ $\quad -3(4x-7)$

$24x-40$ $\quad -12x+21$

$24x+(-12x)$ $\quad -40+21$

$12x-19$

$-3(4x+(-7))$

$(-3)(-7)=21$

$27 + 28 + 73$

128

$27 + 73 + 28$

$100 + 28 = 128$

Commutative Property

With add/mult

When adding or multiplying ONLY, order does not matter.

$3 + 4 = 4 + 3$

$a + b = b + a$

$5 * 8 * 6 = 6 * 5 * 8$

$40 * 6 = 30 * 8$

$240 = 240$

$a * b = b * a$

$ab = ba$

$(77 * 4) * 25 = 77 * (4 * 25)$

7700

$77 * 100 = 7700$

Associative Property

Add & Mult you can rearrange the parenthesis

$(8 + 4) + 5 = 8 + (4 + 5)$

Identity Property → what it is

$5 + 0 = 5$

$a + 0 = a$

Anything plus $\emptyset$ is itself.

$6 * 1 = 6$

$a * 1 = a$

Anything times 1 is itself.

Inverse Property how it dies.

$8 + (-8) = 0$

Add opposites = 0

$a + (-a) = 0$

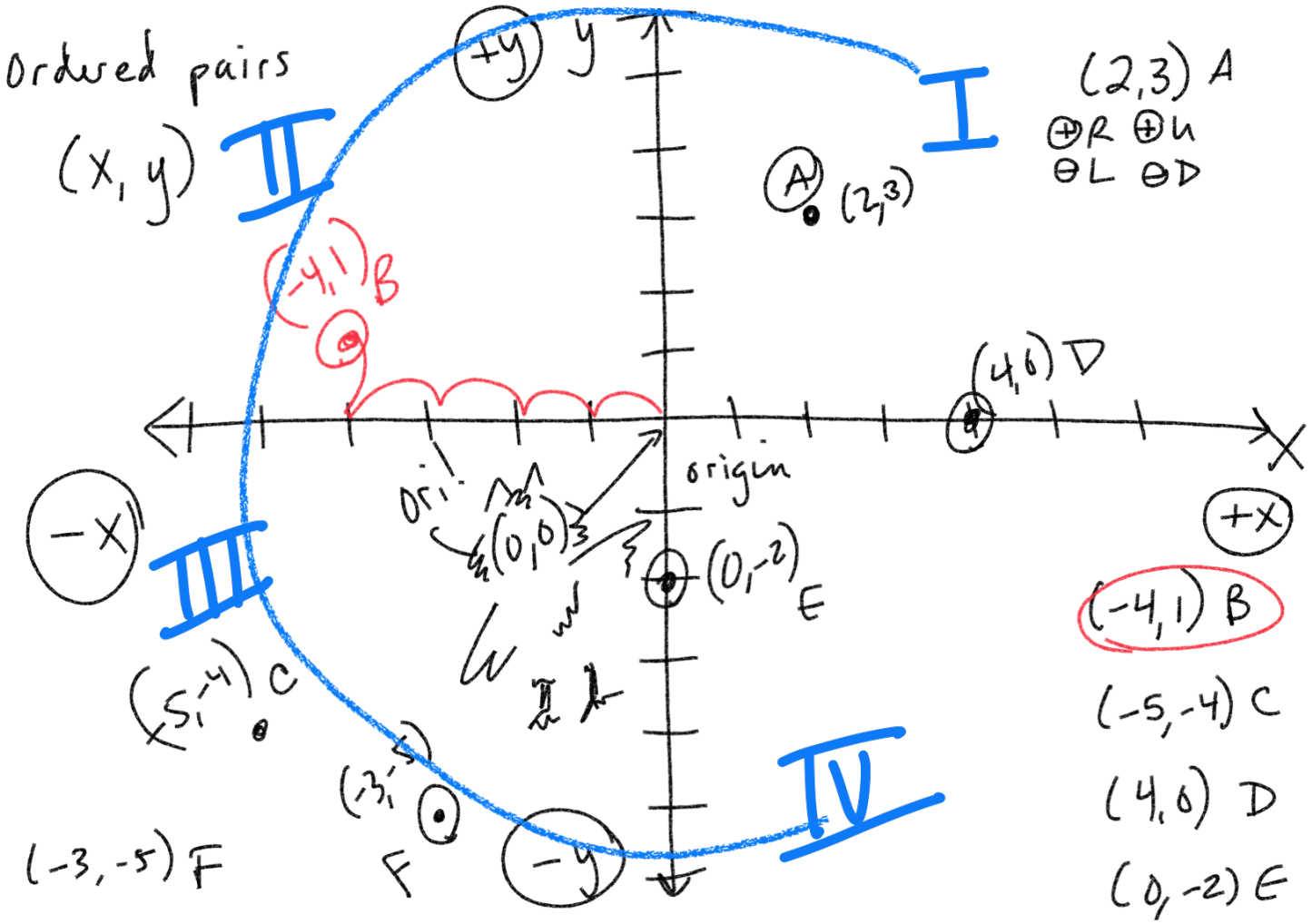
$8 * \frac{1}{8} = 1$ ($\frac{8}{1}$)

inverse

Multiply inverses = 1

$a * \frac{1}{a} = 1$

$a \neq 0$


Ordered pairs
(x, y)
II
+y
y
I
(2,3) A
⊕R ⊕U
⊖L ⊖D
A (2,3)
(-4,1) B
(4,0) D
origin
ori:
(0,0)
(0,-2) E
-x
III
+x
(-4,1) B
(-5,-4) C
(4,0) D
(0,-2) E
(-5,-4) C
(-3,-5) F
F
IV
-y

Algebra 1 Chapter 1 Pre-Test

Write a variable expression for each word phrase.

1.) The 8 more than the product of a number and 4.

2.) The 9 less than the sum of k and 7.

3.) The difference between 12 and b.

4.) The quotient of f and 11.

5.) Two times the quantity 8 plus w.

Simplify each expression.

1.) $3 \times 2^2 + 16 \div 4 - 3$

2.) $8 + [(24 \div 4 \times 10) - 2]$

3.) $12 - 3(8^2 + 2^3)$

4.) $68 - 12 \div 2 \div 3 \times 2^5$

Evaluate the expression.

1.) $8a + 2(b - c)^2$, for a = 3, b = 7, and c = 4

2.) $3x - 2y - y(9 - 4)$, for x = 4 and y = 2

3.) $def + 6e^3$, for d = 6, e = 2, f = 3

4.) $\frac{ab}{2} - 3$, for a = 7, b = 8

Compare. Use >, <, or = to complete each statement.

owe

1.) -6.98 ___>___ -6.99

2.) -3 _____ |-8|

-3 < 8

3.) |-12| _____ |-5|

12 > 5

{ > Greater than

{ < Less than

2 > -9

4.) 2 _____ -|-9|

Determine whether each number is rational or irrational. In addition, name the set(s) of numbers to which each number belongs.

if rational

1.) 6.779

2.) 0.567567567…

3.) 9

4.) 0

5.) -3

6.) π

7.) $\sqrt{16}$

8.) $\sqrt{50}$

9.) ½ → rational, fractim

rational: counting, whole, integers, repeating decimals, terminal decimals, perfect squares, fractim

Find each sum.

No calculators!

1.) -8 + (-5)

2.) 9 + 3

3.) -6 + 8

4.) 4 + (-11)

FInd the difference of each.

1.) 8 - 12

2.) -9 - 4

3.) 3 - (-5)

4.) -12 - (-6)

No calculator!

Find each.

1.) 8(-5)

2.) $(7)(-3)^2$

3.) (-9)(4)

4.) (-8)(-2)

5.) $\frac{-2}{3} \div \frac{3}{4}$

6.) 84 ÷ (-12)

7.) $\frac{240}{(-2)(-5)}$

No calculator!

Evaluate each expression.

1.) $-ab^2$ for a = 2 and b = -3

Yes to calculators!

2.) $-(-w)^2$ for w = 3

3.) $-x^3 + xy$ for x = 4 and y = -5

Simplify each expression.

1.) $\frac{2}{5}(5a + 45)$

yes Calculators!

2.) $6(x + 3) - 4x$

3.) $-8 - 4(3b + 7)$

4.) $-(4s^2 + 1)$

commutative, associative, identity, inverse, distributive

Name the property that each equation illustrates.

1.) $(4 \cdot 5) \cdot 2 = 4 \cdot (5 \cdot 2)$ → associative

2.) $23 + 54 + 27 = 23 + 27 + 54$ commutative

order does not matter

3.) $5 + 0 = 5$ identity

4.) $\frac{2}{3}(3/2) = 1$ inverse

5.) $3(a + b) = 3a + 3b$ distributive

Label each quadrant. Next, plot the points below.

1.) A (6, -4)
2.) B (-7, 2)
3.) C (0, 8)
4.) D (3, 9)
5.) E (-7, -1)
6.) F (-4, 0)