Warm Up Grade 8

Date: Jan 5/26

1) Evaluate the expression $5x+20$ for $x = 6$

$5x + 20$

$5(6) + 20$

$30 + 20$

50

2) Evaluate the expression $4x - 7$ for x = 1, then for x=2 and x= 4

$x = 1$

$4x - 7$

$4(1) - 7$

$4 - 7$

$= -3$

(x, y)

$(1, -3)$

$x = 2$

$4x - 7$

$4(2) - 7$

$8 - 7$

$= 1$

$(2, 1)$

$x = 4$

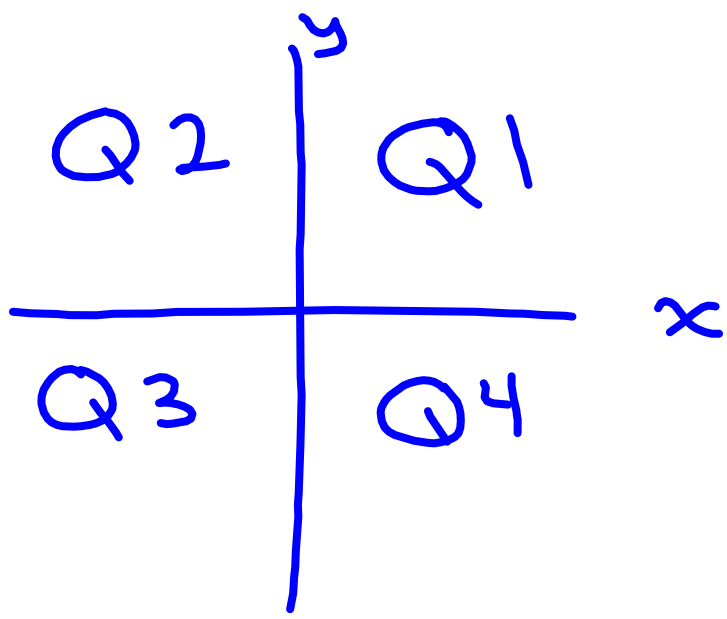
$4x - 7$

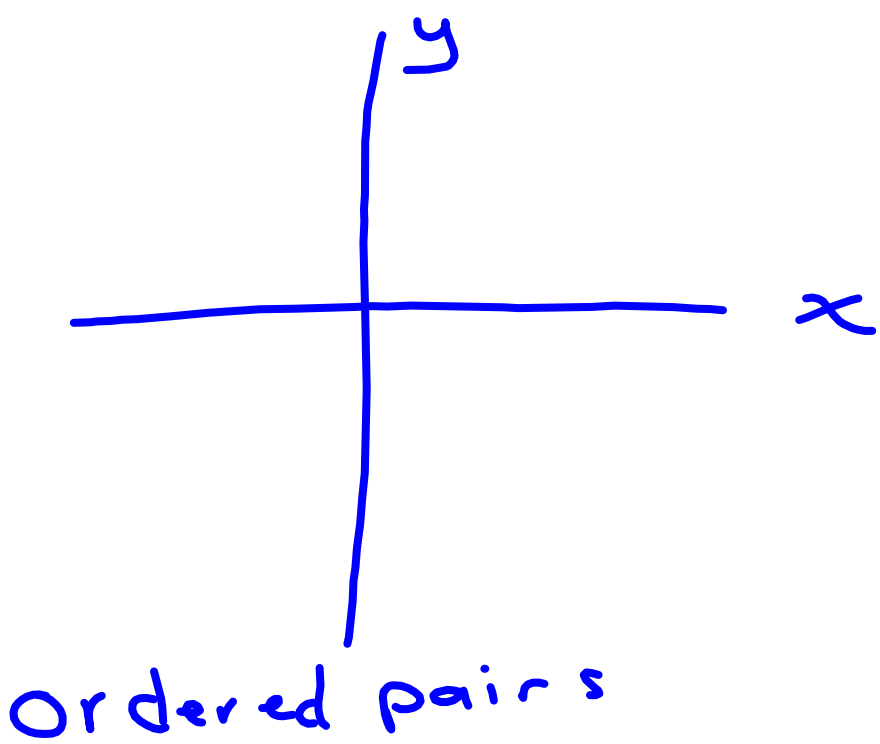
$4(4) - 7$

$16 - 7$

9

$(4, 9)$





Ordered pairs

Using Tables

You can use tables and charts to help you solve equations.

Sometimes you will be given the equations (output) and you will be asked to complete the table or find the missing numbers. Other times you will be given the table and you will be able to figure out the equations.

Complete the following tables: $2(x)+4$

Input x	Output 2x + 4	Ordered Pairs
1	6	(1, 6)
2	8	(2, 8)
3	10	(3, 10)
4	12	(4, 12)
5	14	(5, 14)

Ordered pairs are (x, y)

x = 1

2x + 4

2(1) + 4

2 + 4

6

x = 2

2x + 4

2(2) + 4

4 + 4

8

x = 3

2x + 4

2(3) + 4

6 + 4

10

Input x	Output -3x + 2	Ordered Pairs
1	-1	(1, -1)
2	-4	(2, -4)
3	-7	(3, -7)
4	-10	(4, -10)
5	-13	(5, -13)

x = 1

-3x + 2

-3(1) + 2

-3 + 2

-1

x = 2

-3x + 2

-3(2) + 2

-6 + 2

-4

x = 3

-3x + 2

-3(3) + 2

-9 + 2

-7

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2x1 +4
2x2+4
2x3+4

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3	-7	(3, -7)
4	-10	(4, -10)
5	-13	(5, -13)

-3x1+2

x y

Homework pg. 356 # 4-8

The equation is y= -3x + 4. Find the missing number in each ordered pair.

(x, y)

x y

a) (-2, ___)

Given

$x = -2$

$y = -3x + 4$

$y = -3(-2) + 4$

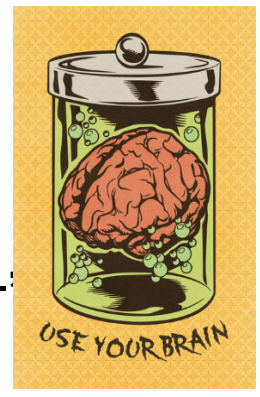
$y = 6 + 4$

$y = 10$

(-2, 10)

x y

b) (___



Given

$y = -38$

$y = -3x + 4$

$-38 = -3x + 4$

$-38 \ -4 = -3x + 4 - 4$

$-42 = -3x$

$\div(-3) \quad \div(-3)$

$14 = x$

(14, -38)

Class/Homework

WS. 356 (Next slides)

#4bc, 5bc, 7ab, 8c, 9ab

4. Copy and complete ea table of values.

a) $y = x + 1$

x	y
1	2
2	
3	
4	
5	

$x = 1$ $\quad$ $x = 2$ $\quad$ $x = 3$

$x + 1$ $\quad$ $x + 1$ $\quad$ $x + 1$

$(1) + 1$

2

b) $y = x + 3$

x	y
1	
2	
3	
4	
5	

c) $y = 2x$

x	y
1	
2	
3	
4	
5	

5. Make a table of values for each relation.

a) $y = 2x + 1$

b) $y = 2x - 1$

c) $y = -2x + 1$

x	y
1	
2	
3	
4	
5	

7. Melanie earns \$7 per hour when she baby-sits. An equation for this relation is $w = 7h$, where h represents the number of hours and w represents Melanie's wage in dollars.

a) Use the equation to create a table of values.

b) In one week, Melanie earned \$105. How many hours did she baby-sit?

$w = 7h$

$y = 7x$

x (h)	y (w)
0	
1	
2	
3	
4	
5	

given w

find h

8. Copy and complete each tabl

a) $y = x + 2$

x	y
−3	
−2	
−1	
0	
1	
2	
3	

b) $y = x - 3$

x	y
−3	
−2	
−1	
0	
1	
2	
3	

c) $y = x + 4$

x	y
−3	
−2	
−1	
0	
1	
2	
3	

9. Make a table of values for each relation.

a) $y = -2x + 3$

b) $y = -5x - 4$

c) $y = 8x - 3$