Warm Up Grade 8

1) Find the missing value for the ordered pairs of $y = 6x + 5$

(show work)

a) $(-5, \_\_)$

$x \quad y$

$Y = 6x + 5$
$= 6(-5) + 5$
$= (-30) + 5$
$Y = -25$
$(-5, -25)$

b) $(\_\_, 59)$

$x \quad y$

$y = 6x + 5$
$59 = 6x + 5$

$59 - 5 = 6x + 5 - 5$

$54 = 6x$
$\div 6 \qquad \div 6$

$9 = x$

$(9, 59)$

Key word
for each
for every
per

} This #
goes
with
the
variable

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4(b,c), #5(a,c), #6, #7, #8(b), #11, #12(Like a test question)

b) $y = x + 3$

Input	Output
x	
1	4
2	5
3	6
4	7
5	8

c) $y = 2x$

Input	Output
x	y
1	2
2	4
3	6
4	8
5	10

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5. a) $y = 2x + 1$

Input	Output
X	y
1	3
2	5
3	7
4	9
5	11

4(b,c), #5(a,c), #6, #7,

x = 1

$y = 2x + 1$

$= 2(1) + 1$

$= 2 + 1$

$= 3$

x = 2

$y = 2x + 1$

$= 2(2) + 1$

$= 4 + 1$

$= 5$

x = 3

$y = 2x + 1$

$= 2(3) + 1$

$= 6 + 1$

$= 7$

c) $y = -2x + 1$

Input	Output
X	y
1	-1
2	-3
3	-5
4	-7
5	-9

$-2(1) + 1$
$-2 \quad +1$
-1

$-2(2) + 1$
$-4 \quad +1$
-3

$-2(3) + 1$
$-6 \quad +1$
-5

4

6.   ordered pairs

Input	Output
x	y
0	−7
1	2
2	11
3	20
4	29
5	38

$y = 9x - 7$

$x = 2$ $9(\ ) - 7$
$9 \times 2 - 7$
$18 - 7$
11

$x = 4$
$9 \times 4 - 7$
$36 - 7$
29

$y = 9(x) - 7$

$38 = 9x - 7$ or   see if pattern
$38 + 7 = 9x - 7 + 7$ continue
$45 = 9x$ $9 \times 5 - 7$
$\dfrac{45}{9} = \dfrac{9x}{9}$ $45 - 7$
$5 = x$ 38

7. $w = 7h$

Input	Output
h	$7h$
1	7
2	14
3	21
4	28
5	35

Input	Output

b) $7h = 105$
$\dfrac{7h}{7} = \dfrac{105}{7}$
$h = 15$

c) $h = 24$
$w = 7h$
$= 7 \times 24$
$= \$168$

8a) $y = x + 2$

Input	Output
x	y
-3	-1
-2	0
-1	1
0	2
1	3
2	4
3	5

Input	Output

b) $y = x - 3$

Input	Output
x	y
-3	-6
-2	-5
-1	-4
0	-3
1	-2
2	-1
3	0

c) $y = x + 4$

Input	Output
x	y
-3	1
-2	2
-1	3
0	4
1	5
2	6
3	7

☺ 1) a) $y = -2x + 7$

a) $(-8, \_\_)$

$y = -2x -8 + 7$
$y = 16 + 7$
$= 23$

b) $(12, \_\_)$

$y = -2 \times 12 + 7$
$y = -24 + 7$
$= -17$

c) $(\_\_, 31)$

$31 = -2x + 7$
$31 - 7 = -2x + 7 - 7$
$24 = -2x$
$\dfrac{24}{-2} = \dfrac{-2x}{-2}$
$-12 = x$

d) $(\_\_, -23)$

$-23 = -2x + 7$
$-23 - 7 = -2x + 7 - 7$
$-30 = -2x$
$\dfrac{-30}{-2} = \dfrac{-2x}{-2}$
$15 = x$

2. $m = 100 - 2n$

n $100 - 2n$

Input	Output
0	100
5	90
10	80
15	70
20	60
25.	50

(b)
→ after 20 weeks
he will have a mass
of 60 kg

b) $100 - 2n = 60$
$100 - 2n - 100 = 60 - 100$
$-2n = -40$
$\dfrac{-2n}{-2} = \dfrac{-40}{-2}$
$n = 20$

In 20 months
he will have
reached 60 kg

c) $n = 7$, $100 - 2n$
$100 - 2 \times 7$
$100 - 14$
86

On his b-day
his mass was
86 kg

Cost of catering a banquet supper for the local seniors is $8 per plate and flat fee of $100. Calculate the following when given the equation,

$$C = 8p + 100$$

$P = 50$

a) How much does it cost if 50 people decide to go? (SHOW YOUR WORK)

$$C = 8p + 100$$
$$C = 8(50) + 100$$
$$C = 400 + 100$$
$$C = 500$$

The cos to cater banquet for 50 people is $500.

b) If the company gets paid $284, then how many people attended ? (SHOW YOUR WORK)

$$C = 8p + 100$$
$$284 = 8p + 100$$
$$284 - 100 = 8p + 100 - 100$$
$$184 = 8p$$
$$\div 8 \qquad \div 8$$
$$23 = p$$

23 people can attend.
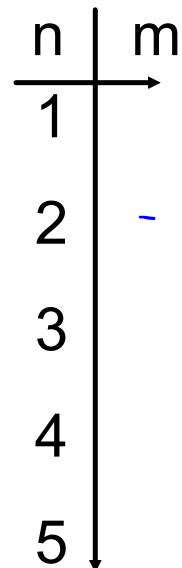
Class/Homework

$$m = 100 - 2n$$

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finish # 11, 12

5b, #8(a,,c), #9(a,b,c), , #10

Sheet Extra Practice 6 V2

n	m
1	
2	
3	
4	
5	

Attachments

Extra Practice 6 Version 2.docx