Warm up back of p 16

Find the range values given each function and domain.

y = x - 5; domain = {4, 6, 8}

4 - 5 = -1
6 - 5 = 1
8 - 5 = 3

y = -2x + 5; domain = {-2, 2, 4}

-2(-2) + 5 = 9
-2(2) + 5 = 1
-2(4) + 5 = -3

Function Review

Name: _____
Date: _____ Bell: ____

Use the rule to complete each function table OR Use the values in the table to find a rule.

1. Rule: x+9

x	y
1	10
5	14
6	15
11	

3. Rule: 6x

x	y
-5	-30
-2	-12
6	36
8	

5. Rule: x-4

x	y
-1	-5
0	-4
2	-2
4	0

2. Rule: 2x + 1

x	y
-2	-3
0	1
4	9
7	15

4. Rule: 3x - 2

x	y
-3	-11
1	1
10	28
11	31

6. Rule: 10x - 5

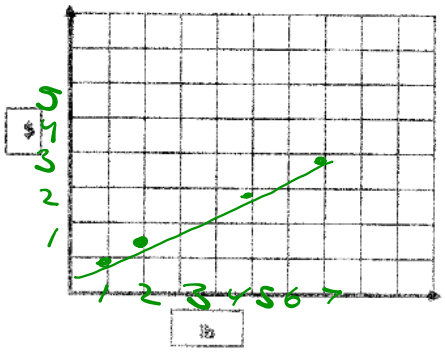
x	y
-10	-105
0	-5
3	25
6	55

Complete each table. Then graph the data. Connect the points.

7. Chewy candies cost $0.50 a pound.

Rule: .50x

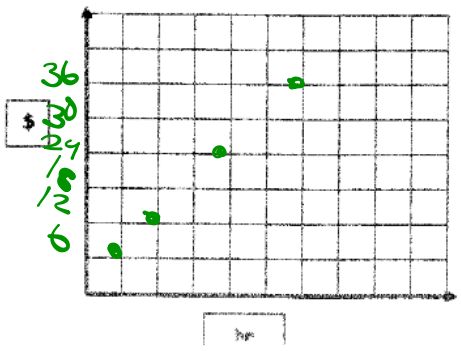
Weight (lb) x	Cost ($) y
1	.50
2	1.00
5	2.50
7	3.50



8. Emma earns $6 per hour.

Rule: 6x

Time (hr) x	Earnings ($) y
1	6
2	12
4	24
6	36



Find the Better Deal!

Charlie would like to change cell phone companies.
He found the following ads in the newspaper:

Answer the following questions to help Charlie:

1. Write an equation for each companies pay plan:

$y = .30x + 15$ $y = .45x$

2. If Charlie would like to spend $90 per month on his cell phone plan, how many minutes will he get from each plan?

$90 = .30x + 15$
$-15 \quad -15$
$75 = .30x$
$x = 250$ min

$\frac{90}{.45} = \frac{.45x}{.45}$
$x = 200$ min

3. Which cell phone company should Charlie pick and why?

Chit Chat.

Slope-Intercept Form *Applications*

Problems that involve an initial starting value and a constant rate of change can be modeled using a linear equation written in slope-intercept form ($y = mx + b$).

Important Parts!	Rate of change = m Initial Value = b Independent Variable = x Dependent Variable = y

1 A computer repair shop charges a $25 fee in addition to $40 per hour to service a computer. Write an equation to represent the total cost to service a computer. Identify your variables.

$y = 40x + 25$

a) What is the rate of change? $m = 40$

b) What is the initial value? $b = 25$

c) What is the independent variable? $x =$ hours

d) What is the dependent variable? $y =$ total cost

2 An online photo printing shop charges $0.15 per print in addition to a $2.95 shipping charge. Write an equation to model the total cost for printing pictures. Identify your variables.

$y = .15x + 2.95$

a) What is the rate of change? $m = .15$

b) What is the initial value? $b = 2.95$

c) What is the independent variable? $x =$ prints

d) What is the dependent variable? $y =$ total cost

3 Mark bought a season ticket to the ski resort for $395, however, he must pay $25 to rent skis each time he goes skiing. Write an equation to model the total cost that Mark will pay for skiing this season.

a) What is the rate of change?

b) What is the initial value?

c) What is the independent variable?

d) What is the dependent variable?

4 Jane bought a car with 23,000 miles on it. She determined that she typically drives 12,000 miles per year. Write an equation to show the number of miles on Jane's car after each year she drives it.

a) What is the rate of change?

b) What is the initial value?

c) What is the independent variable?

d) What is the dependent variable?

Directions: Read each problem, write an equation, then solve using your equation.

5. A truck rental company charges $19.95 to rent a truck plus $0.24 per mile driven. Find the cost to rent a truck and drive 188 miles.

① $y = .24x + 19.95$

$y = .24(188) + 19.95$

$y = 65.07$

6. Eva started a savings account with $500. If she plans to save $75 each month, find the total balance after 2 years.

7. At the beginning of Jack's diet, he was 257 pounds. If he lost 3 pounds per week, find his weight after 12 weeks.

8. It costs $5 for a membership to Top Golf, then $35 per hour to golf. If Max paid $127.50 during his first trip to Top Golf, how many hours did he play?

9. A hot-air balloon at 1,400 feet descends at a rate of 75 feet per minute. Find the time it will take the hot-air balloon to reach the ground.

10. It costs $25 to rent a kayak in addition to $7.50 per hour. Logan rented the kayak at 11:00 a.m. then returned it later that evening. If he paid $70, what time did he return the kayak?

1 ~ finish quiz

2~ finish graded classwork from last week

3~ finish homework from today

4~ IXL.com

7th grade

U.4, U.5, U.6

$y = 2x + 2$

$2(0) + 2 = 2$

$2(-2) + 2 = -2$