6th Grade
April 19, 2021

Today we will:

-Review Friday's notes and do some examples together
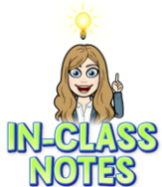
-Complete and review pg599

HOMEWORK:

Kahoot Challenge (link on spxmath.weebly.com)

OPTIONAL Assignment on equations for points back on quiz due NEXT FRIDAY, APRIL 23

ALEKS time and topics due TONIGHT

Math Chapter 8

TITLE: Functions

Date	Lesson	Topic/Assignment
4/12	1	Function Tables In-Class Notes
4/13	1	HOMEWORK: Homework Practice WS
4/13	1	CLASSWORK: Pg 583 WS
4/14	2	Function Rules Video Notes and In-Class Notes
4/15	2	HOMEWORK: Practice WS
4/15	2	CLASSWORK: Extra Practice WS
4/16	3	Functions and Equations In-Class Notes
4/19	3	CLASSWORK: Pg 599 WS

Name _____

Unit ____ Lesson _____ Due Date _____

8-3 Functions and Equations

1. Write an equation to represent the function shown in the table.

Input, x	1	2	3	4	5
Output, y	9	18	27	36	45

① What do I need to do to x to get y?

Rule: Multiply by 9.

② $y = 9x$

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2. Graph y = 2x.

① Choose at least 3 x's and follow the rule to get y.

②

x	2x	y	
0	2·0	0	(0,0)
1	2·1	2	(1,2)
2	2·2	4	(2,4)

Write an equation to represent the function shown in the table.

Input, x	1	2	3	4	5
Output, y	12	24	36	48	60

Rule: Multiply by 12

Answer

$y = 12x$

Graph y = x + 2

Answer

x	y	
2	4	(2,4)
3	5	(3,5)
10	12	(10,12)

Functions and Equations In-class Notes, Unit 8, Lesson 3, Pg2

Functions can be represented using

_____ **equations** _____ or _____ **graphs** _____.

If the graph is a line, the function is a

_____ **Linear** _____ _____ **function** _____.

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3. Martino constructed the graph shown, which shows the height of his cactus after several years of growth. Make a function table for the input-output values

Cactus Height

Height (in.): 40–47
Years of Growth: 1, 2, 3
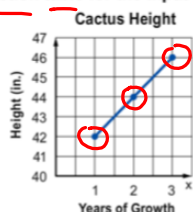
Make ordered pairs. $(1, 42)$
$(2, 44)$
$(3, 46)$

The x (input) values are 1,2,3.
The y (output) Values are 42,44,46

| Input (x)	Output (y)
1	42
2	44
3	46

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4. Martino constructed the graph shown, which shows the height of his cactus after several years of growth. Write an equation from the graph that could be used to find the height y of the cactus after x years.

Cactus Height

Height (in.): 40–47
Years of Growth: 1, 2, 3

x	y
1	42
2	44
3	46
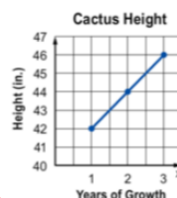
$y = 2x + 40$

Melina constructed the graph at the right to show the cost to rent a canoe after several hours.
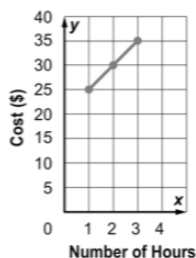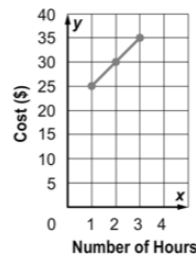
Write an equation from the graph that could be used to find the cost y to rent a canoe after x hours.

Cost ($): 0–40
Number of Hours: 1 2 3 4

Answer

x	y
1	25
2	30
3	35

$y = 5x + 20$

Melina constructed the graph below to show the cost to rent a canoe after several hours.

Cost ($): 0–40
Number of Hours: 1 2 3 4

Make a function table for the input-output values.

Ordered pairs: $(1, 25)$
$(2, 30)$
$(3, 35)$

Answer

x	y
1	25
2	30
3	35

More Examples:

Write an equation to go with the function table.

Input, x	1	2	3	4	5
Output, y	7	14	21	28	35

$y = x \cdot 7$ or $y = 7x$

Input, x	2	4	6	8	10
Output, y	5	9	13	17	21

$y = 2x + 1$

Graph the function.

$y = 4x$

y	4	8	12
x	1	2	3

1
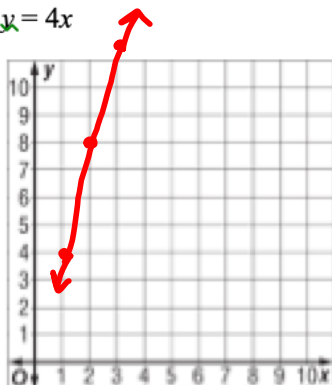
$y = 2x + 1$
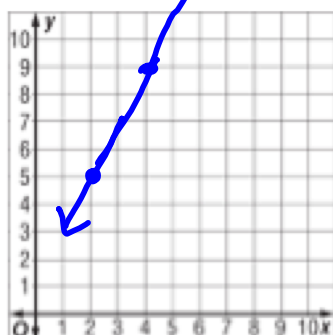
X	Y
4	9
7	15
2	5

Name_____

CLASSWORK Unit _____ Lesson _____ Due Date _____

Write an equation to represent each function. (Example 1)

1.

Input (x)	1	2	3	4	5
Output (y)	6	12	18	24	30

$y = 6x$

2.

Input (x)	0	1	2	3	4
Output (y)	0	15	30	45	60

$y = 15x$

Graph each equation. (Example 2)

3 $y = x + 4$

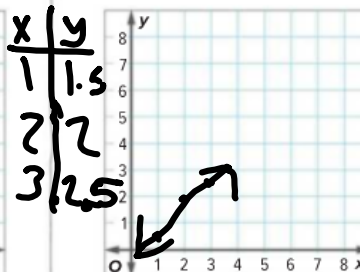| x	y
1	5
2	6
3	7

4. $y = 2x + 0.5$

x	y
1	2.5
2	4.5
3	6.5

5. $y = 0.5x + 1$

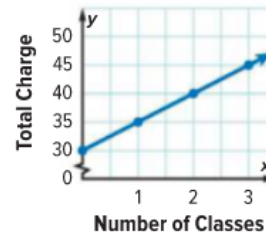| x	y
1	1.5
2	2
3	2.5
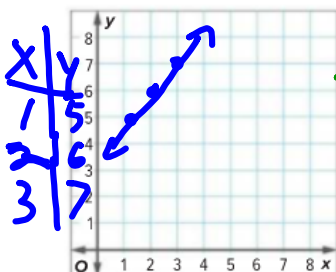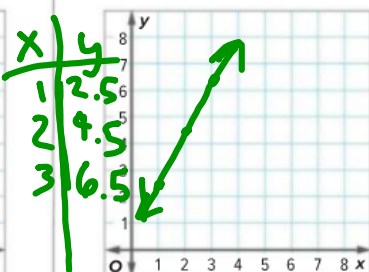
6. The graph shows the charges for a health club in a month. Make a function table for the input-output values. Write an equation that can be used to find the total charge y for the number of x classes. (Examples 3 and 4)

Input (x)	0	1	2	3
Output (y)	30	35	40	45

$y = 5x + 30$

7 The graph shows the amount of money Pasha spent on lunch. Make a function table for the input-output values. Write an equation that can be used to find the money spent y for any number of days x. (Examples 3 and 4)

Input (x)	1	2	3	4
Output (y)	5	10	15	20

$y = 5x$