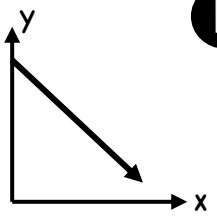
STATION 1

I can identify functions.

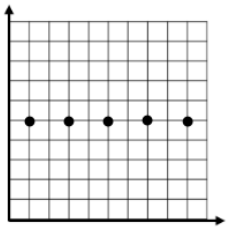
Eric has separated and identified the following representations, but he has made some mistakes. Record the letter of the 5 representations that are not correctly placed, and explain your reasoning.

FUNCTIONS

A



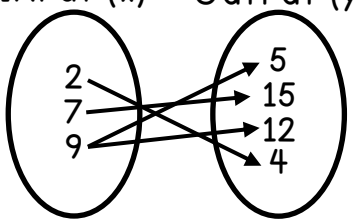
B



C {(1, 7), (-6, 0), (2, 8), (-2, 4)}

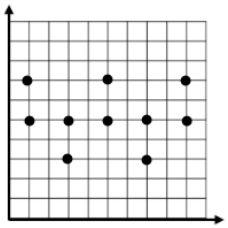
D $y^2 = 4x + 16$

E

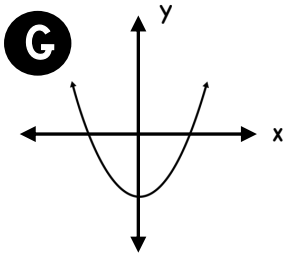


NOT FUNCTIONS

F



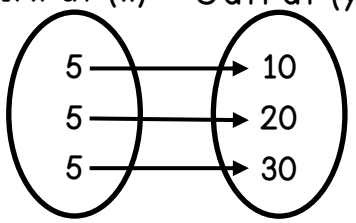
G



H {(1, 3), (-6, 3), (2, 3), (-2, 3)}

I $y = 8x^2 - 10$

J

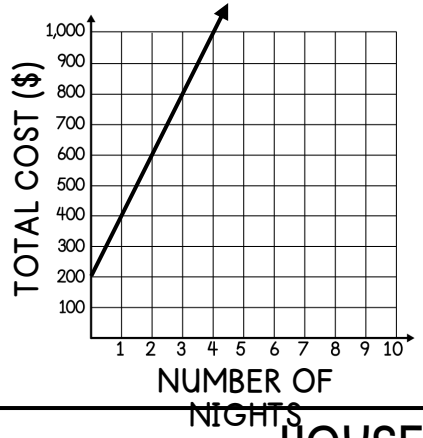


STATION 2

I can compare properties of functions.

After researching beach houses for an upcoming vacation, Josie found the following options. Each beach house charges a non-refundable deposit and a rate per night.

HOUSE 1: "SHORE THING"



HOUSE 2: "BEACHY KEEN"

$y = 100 + 249x$

y = total cost
x = number of nights

HOUSE 3: "SEAS THE DAY"

NUMBER OF NIGHTS	0	1	2	3	4
TOTAL COST	$115	$345	$575	$805	$1,035

1. Which beach house charges the highest nightly rate?
2. Which beach house charges the highest deposit?
3. Which beach house charges the lowest nightly rate?
4. Which beach house charges the lowest deposit?
5. If Josie's family wants to stay for 6-nights, which beach house would be the least expensive?

STATION 3

I can identify functions as linear or non-linear.

Classify the following representations as "linear" or "non-linear" by recording the letter in the appropriate column on your recording sheet.

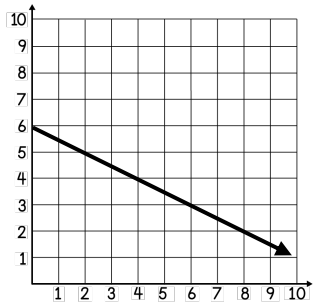
A

x	y
4	-11.2
8	-26.4
12	-41.6
16	-56.8

B

$$y = x^3$$

C



D

$$y = -x$$

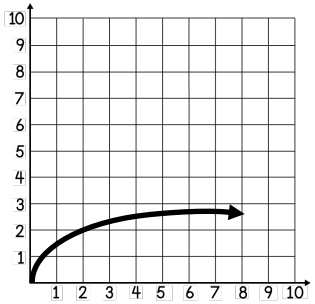
E

x	y
1	0
3	8
5	24
7	48

F

$$y = \frac{10}{x}$$

G



H

$$y = \frac{x}{15}$$

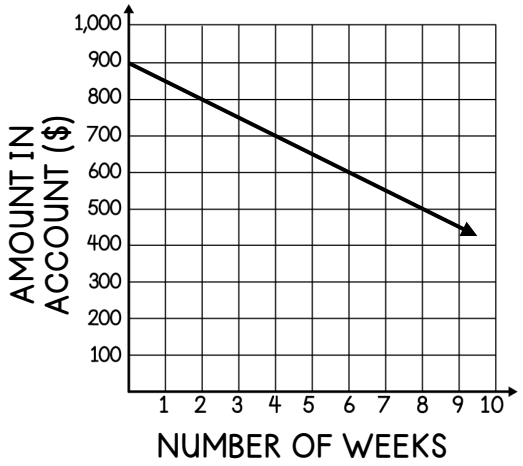
I

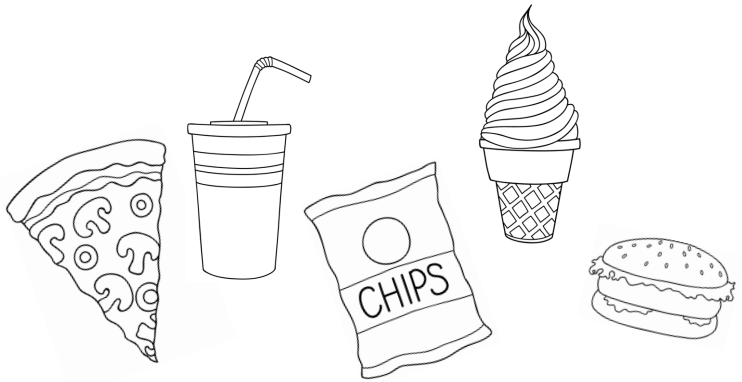
x	y
1	20
2	10
4	5
5	4

STATION 4

I can determine rate of change and initial values from tables and graphs.

Emily has an account that she uses to pay for her food expenses. The graph below shows the amount in her account based on the number of weeks that have gone by. Use the graph to help you answer the following.





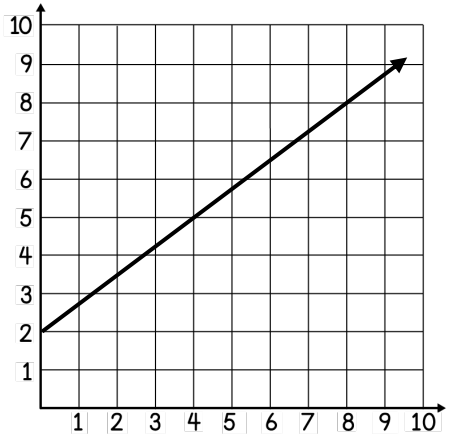
1. How much does Emily start with in her account?
2. How much is Emily spending each week?
3. How many weeks will it take Emily to have used one-third of the money in her account?
4. After 12 weeks, how much will Emily have in her account?
5. Emily's brother spends 1.5 times as much as Emily does on food each week. How much does her brother spend each week?

STATION 5

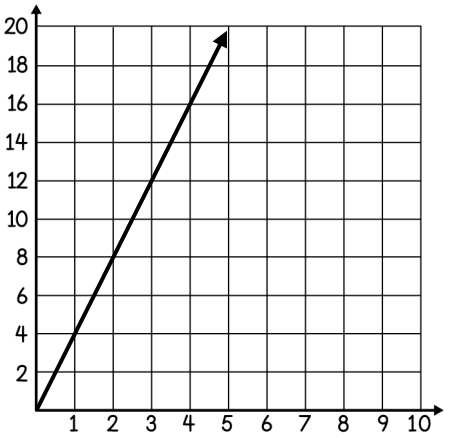
I can determine rate of change and initial values from tables and graphs.

Write an equation in slope-intercept form for each of the graphs shown below.

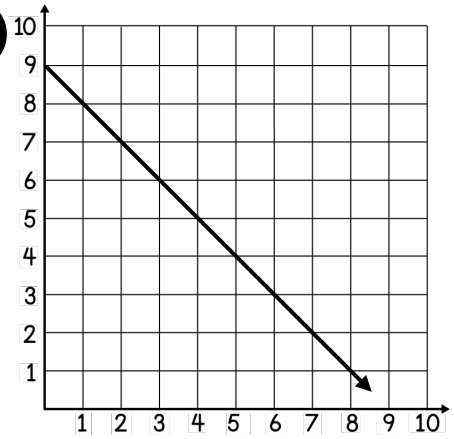
A



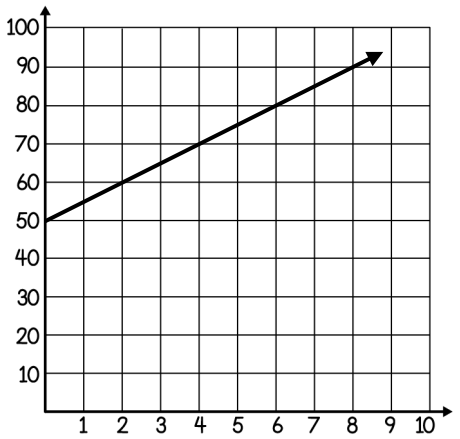
B



C



D



STATION 6

I can determine rate of change and initial values from tables and graphs.

Write an equation in slope-intercept form for each of the following tables.

A

x	y
-4	-27
-2	-12
0	3
2	18

B

x	y
-18	-7
-9	-5
0	-3
9	-1

C

x	0	3	6	9
y	-10	-13.6	-17.2	-20.8

D

x	0	7	14	21
y	0	8	16	24

STATION 7

I can determine rate of change and initial values from ordered pairs.

Use each given slope and point of a line on the left to write an equation in slope-intercept form. Find the matching equation on the right.

1	$m = \frac{2}{3}$; (3, -7)
2	m = 3; (-5, -13)
3	m = 3; (-6, -23)
4	$m = -\frac{5}{4}$; (8, -9)
5	$m = \frac{2}{3}$; (-15, -10)
6	m = 1.5; (8, 12)
7	$m = -\frac{5}{4}$; (12, -16)
8	$m = \frac{2}{3}$; (-3, -9)
9	m = 1.5; (10, 21)
10	m = 3; (-9, -27)

A	$y = -\frac{5}{4}x - 1$
B	$y = \frac{2}{3}x$
C	y = 1.5x + 6
D	y = 3x
E	$y = \frac{2}{3}x - 9$
F	y = 1.5x
G	y = 3x – 5
H	$y = \frac{2}{3}x - 7$
I	$y = -\frac{5}{4}x + 1$
J	y = 3x + 2

STATION 8

I can determine rate of change and initial values from ordered pairs.

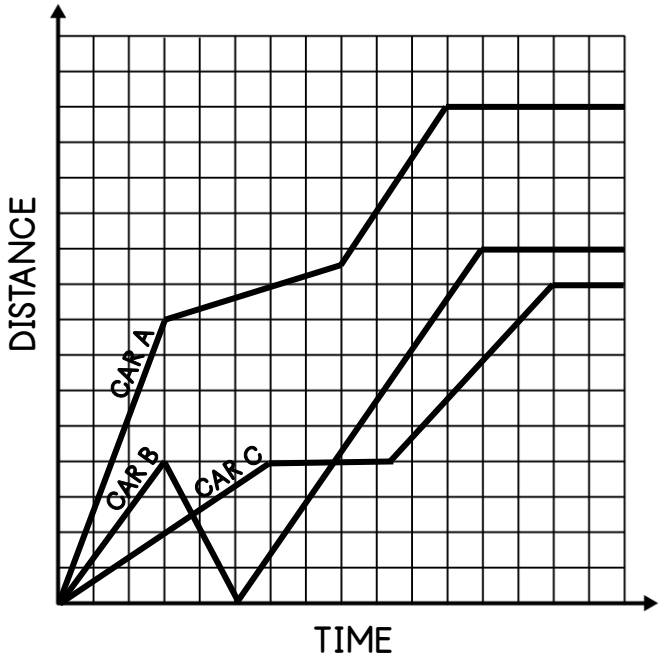
Write an equation in slope-intercept form for the line that passes through the following ordered pairs.

A (0, 2) and (-3, 23)	B (5, -8) and (10, -7)	C (6, 53) and (-1, -38)
D (4, 3) and (20, 15)	E (3, -35) and (-3, 13)	F (-8, 9) and (2, 4)

STATION 9

I can analyze graphs of functions.

The distance vs. time graph below shows the commute of 3 different cars on their way to work.



A List the cars according to the amount of time it took them to get to work from least to greatest.

B List the cars according to the distance they live from work from least to greatest.

C One of the cars had to slow down from their initial speed when they passed through a school zone. Which car was it?

D One of the cars stopped to have breakfast at a coffee shop on the way. Which car was it?

E What did Car B do that none of the other cars did?

STATION 10

I can sketch graphs of verbal descriptions.

Three runners competed in a race. Use the facts below to sketch a distance vs. time graph on your recording sheet to represent the race. Be sure to label each runner.

RUNNER 1:
This runner started out the fastest. Runner #1 pulled a muscle halfway through the race and had to lie down. Runner #1 did not finish the second half of the race.

RUNNER 2:
This runner gradually picked up speed in the beginning. Runner #2 tripped and fell about a third of the way through the race, but he got up and sprinted as fast as he could. Runner #2 finished the race in first place.

RUNNER 3:
This runner maintained a steady, fast pace throughout the race. Runner #3 started in second place and moved into first place when Runner #1 had to stop. Runner #3 was passed at the very end by Runner #2. Runner #3 finished in second place.

Unit: Functions
Stations Review

Name_____
Date _____ Pd ____

STATIONS REVIEW RECORDING SHEET

STATION 1

1. _____
2. _____
3. _____
4. _____
5. _____

STATION 2

1. _____
2. _____
3. _____
4. _____
5. _____

STATION 3

LINEAR	NON-LINEAR

STATION 4

1. _____
2. _____
3. _____
4. _____
5. _____

STATION 5

A. _____
B. _____
C. _____
D. _____

Unit: Functions
Stations Review

STATION 6

A. _____

B. _____

C. _____

D. _____

STATION 7

1

2

3

4

5

6

7

8

9

10

STATION 8

A

B

C

D

E

F

STATION 9

A. _____

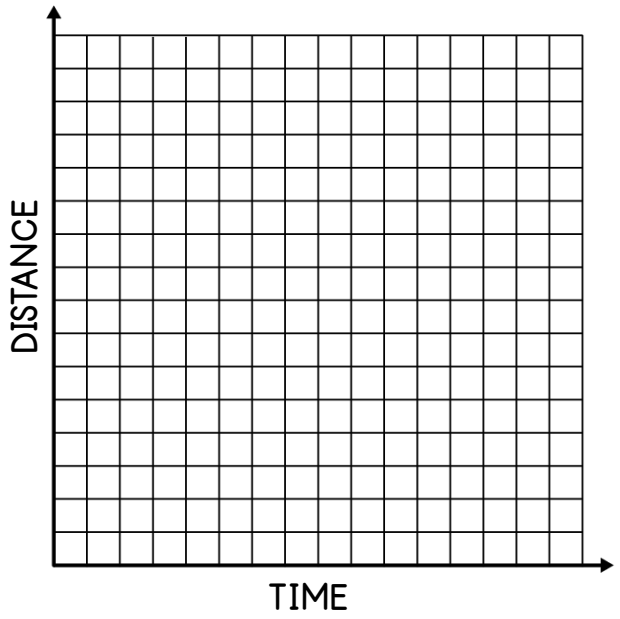
B. _____

C. _____

D. _____

E. _____

STATION 10



Unit: Functions
Stations Review

Name Answer Key
Date _____ Pd _____

STATIONS REVIEW RECORDING SHEET

STATION 1

1. D; not a function because of the y^2
2. E; not a function because the input of 9 has different outputs
3. G; is a function because it passes the vertical line test
4. H; is a function because each input has one output
5. I; is a function because each input has one output

STATION 2

1. House 2 ("Beachy Keen")
2. House 1 ("Shore Thing")
3. House 1 ("Shore Thing")
4. House 2 ("Beachy Keen")
5. House 1 ("Shore Thing")

STATION 3

LINEAR	NON-LINEAR
A C D H	B E F G I

STATION 4

1. $900
2. $50
3. 6 weeks
4. $300
5. $75

STATION 5

A. $y = \frac{3}{4}x + 2$
B. $y = 4x$
C. $y = -x + 9$
D. $y = 5x + 50$

Unit: Functions
Stations Review

STATION 6

A. $y = 7.5x + 3$

B. $y = \frac{2}{9}x - 3$

C. $y = -1.2x - 10$

D. $y = \frac{8}{7}x$

STATION 7

1	E
2	J
3	G
4	I
5	B
6	F
7	A
8	H
9	C
10	D

STATION 8

A: $y = -7x + 2$	B: $y = \frac{1}{5}x - 9$	C: $y = 13x - 25$
D: $y = \frac{3}{4}x$	E: $y = -8x - 11$	F: $y = -\frac{1}{2}x + 5$

STATION 9

A. Car A, Car B, Car C

B. Car C, Car B, Car A

C. Car A

D. Car C

E. Car B is the only car that turned around and went back home during the commute.

STATION 10

*graphs may vary slightly