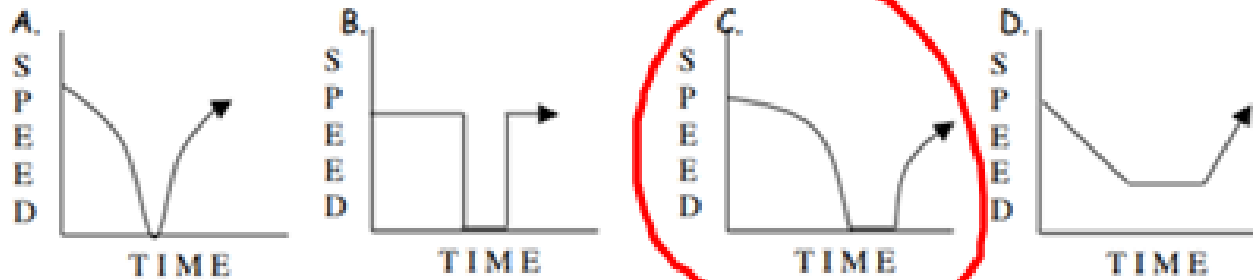


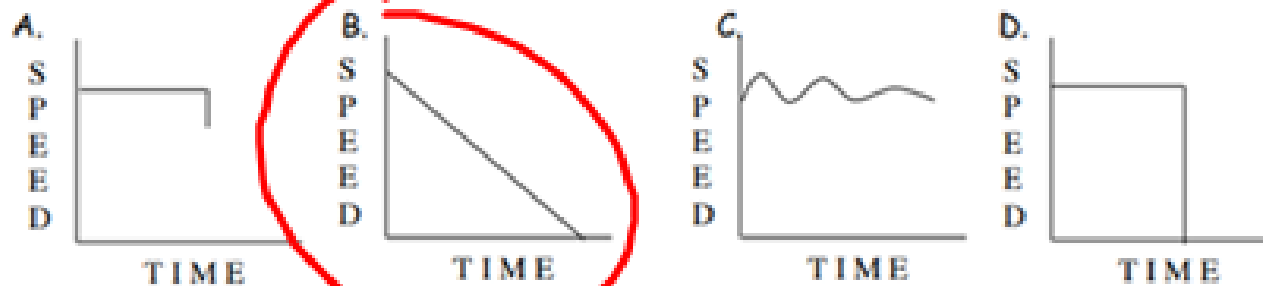
Get out your homework and have it ready to check. Grab a Warm Up and get to work!
Test tomorrow!

Classwork - Test Review #2

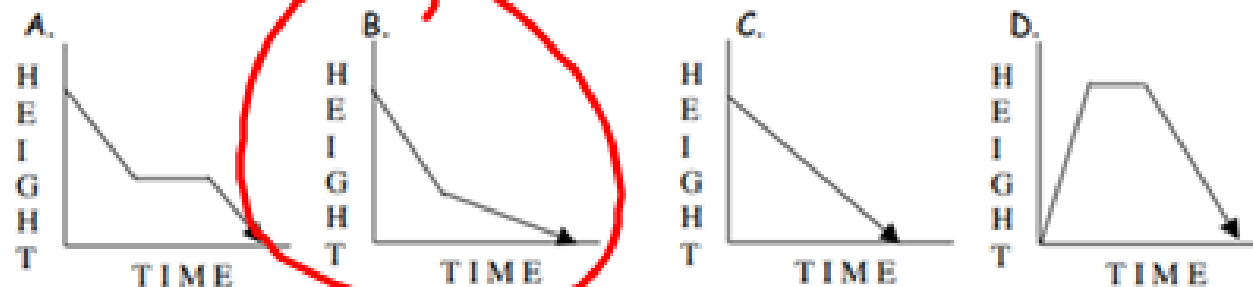
1) A driver stopped her car for a red light. After waiting for the light to turn green, then the driver continued on her way.



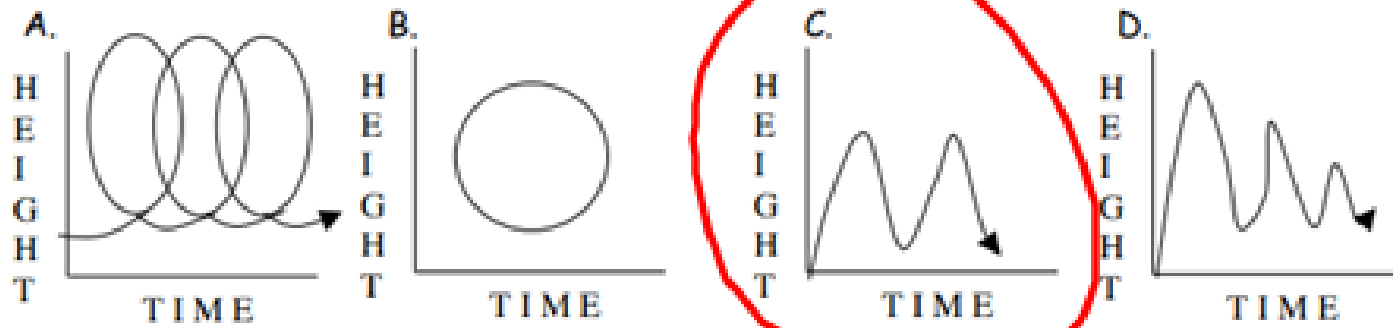
2) A train pulls into the station, and lets off its passengers.



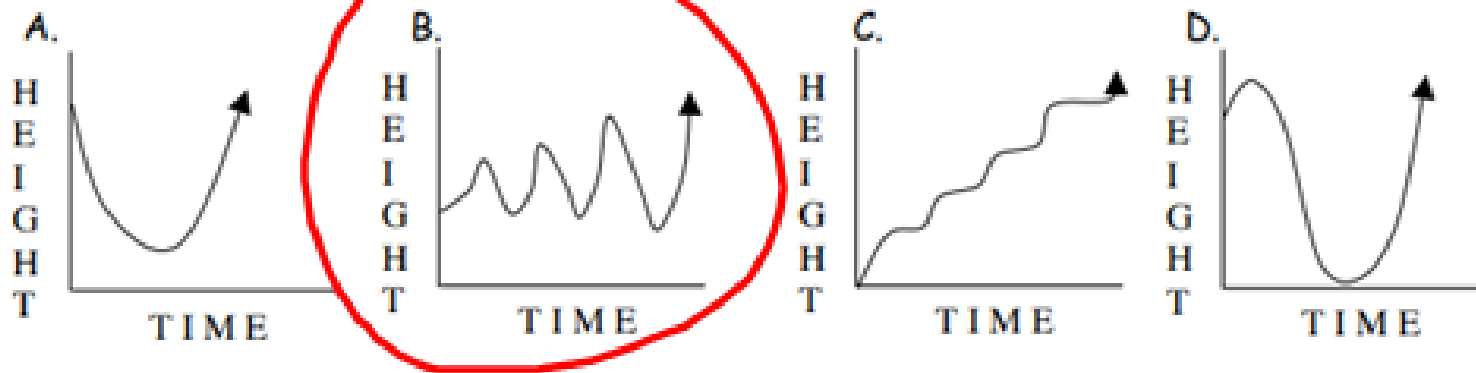
3) Jude parachutes from an airplane, free falls for a while, opens her chute, slows down and lands on the ground.



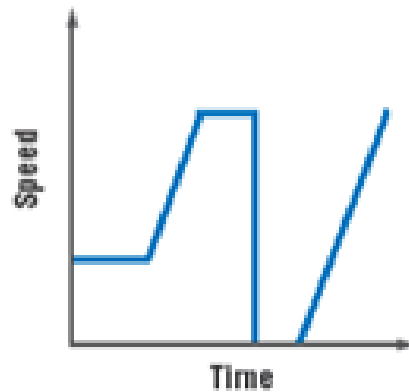
4) A girl takes a ride on a Ferris Wheel.



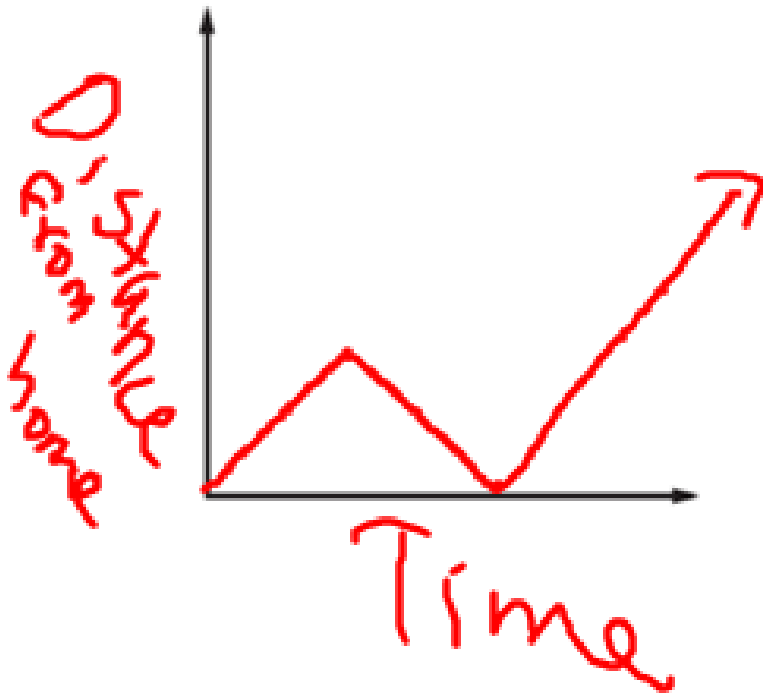
5) A child is on a swing.



6) The graph below displays Tommy's morning run. Describe the change in speed over time.



7) Lloyd walks from his home to the store. Halfway to the store, he realizes that he forgot to bring money, so he turns around, returns home, gets his money, and then walks all the way to the store. Sketch a qualitative graph to represent the distance from home over time.



1) Diana makes \$8.50 an hour working as a life guard

A) Write a function where the money earned m is a function of the hours she has worked w .

Function \rightarrow $m = 8.50w$

B) Make a table of ordered pairs in which the x-coordinate represents the number of hours and the y-coordinate represents the money earned for 1, 2, 3, or 4 hours.

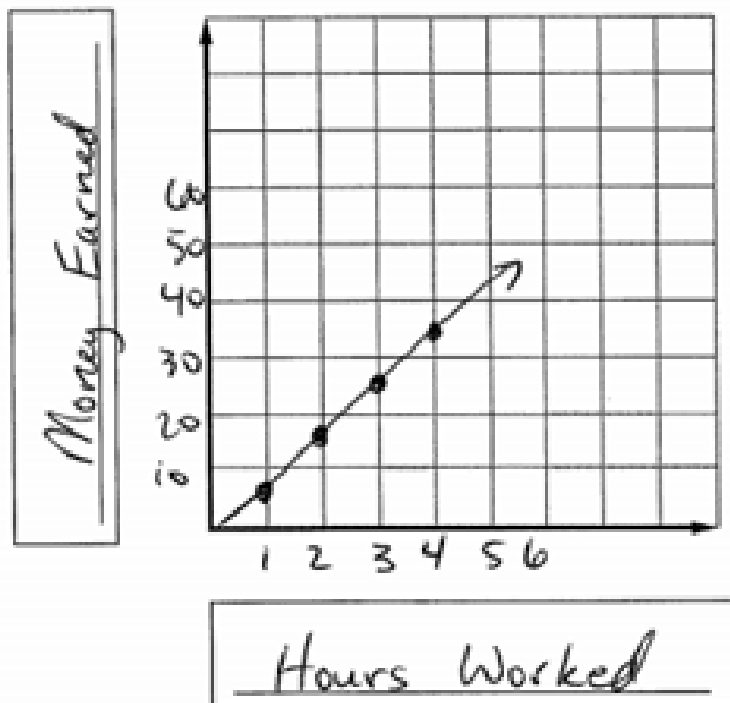
x	y
1	8.50
2	17
3	25.50
4	34

D) Identify the independent and dependent variable of the relationship.

IV: hours worked

DV: Money earned

C) Graph the ordered pairs. LABEL the graph.



E) Is the function discrete or continuous? Explain. (Make sure your graph matches this answer)

Continuous

Explanation:

She can work a partial hour

F) State the domain and range of the relationship.

Domain: { 1, 2, 3, 4 }

Range: { 8.50, 17, 25.50, 34 }

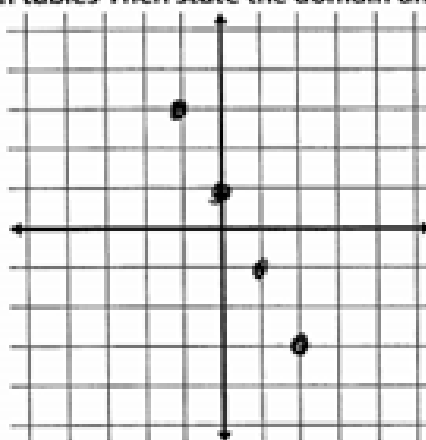
2) Use the four given values for x to complete the following function tables Then state the domain and range of the function. Graph the function.

A) $f(x) = -2x + 1$

x	$-2x + 1$	$f(x)$
-1	$-2(-1) + 1$	3
0	$-2(0) + 1$	1
1	$-2(1) + 1$	-1
2	$-2(2) + 1$	-3

Domain: $\{-1, 0, 1, 2\}$

Range: $\{-3, -1, 1, 3\}$

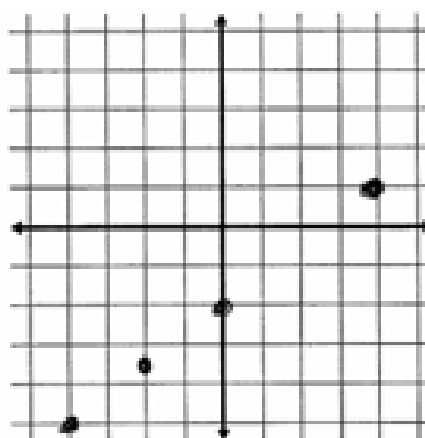


B) $f(x) = \frac{3}{4}x - 2$

x	$\frac{3}{4}x - 2$	$f(x)$
-4	$\frac{3}{4}(-4) - 2$	-5
-2	$\frac{3}{4}(-2) - 2$	-3.5
0	$\frac{3}{4}(0) - 2$	-2
4	$\frac{3}{4}(4) - 2$	1

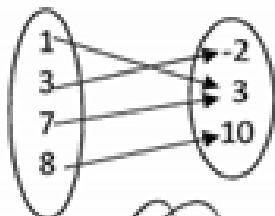
Domain: $\{-4, -2, 0, 4\}$

Range: $\{-5, -3\frac{1}{2}, -2, 1\}$



3) Determine if the if the following relations in the diagrams are functions. If it is not a function, circle the domain value that proves it isn't a function.

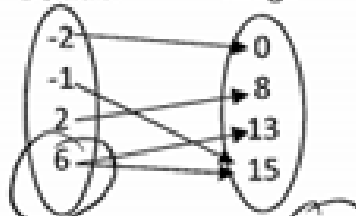
A) Domain Range



Function? Yes or No

Yes

B) Domain Range



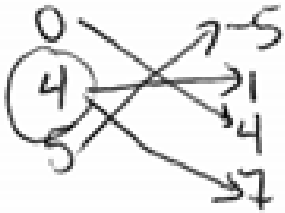
Function? Yes or No

No

4) Determine if the following relations are functions. Draw a diagram with arrows. If it is not a function, circle the domain value that proves it isn't a function.

A) $\{(0, 4), (4, 1), (4, 7), (5, -5)\}$

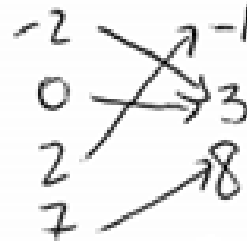
Domain Range



Function? Yes or No

B) $\{(-2, 3), (0, 3), (2, -1), (7, 8)\}$

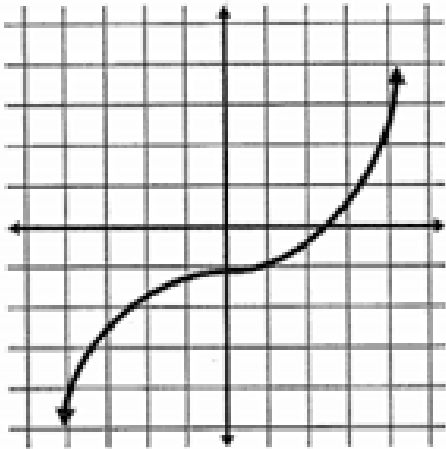
Domain Range



Function? Yes or No

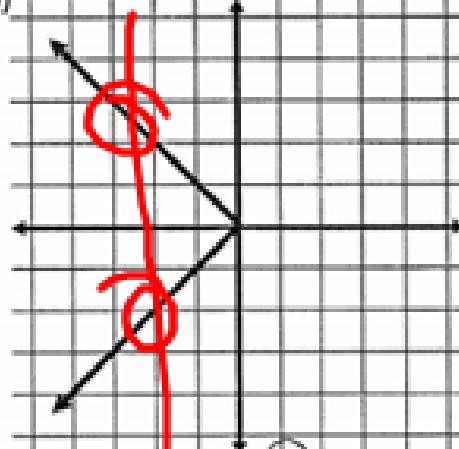
5) Determine if the if the following relations are functions.

A)



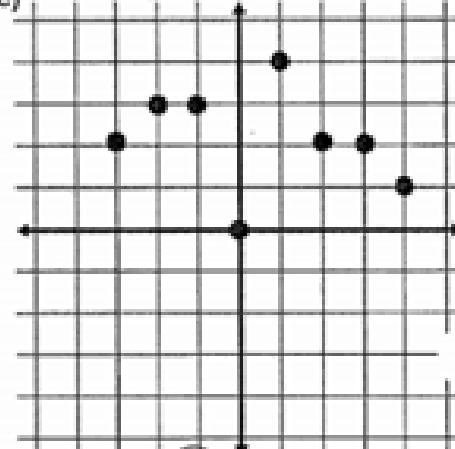
Function? Yes or No

B)



Function? Yes or No

C)



Function? Yes or No

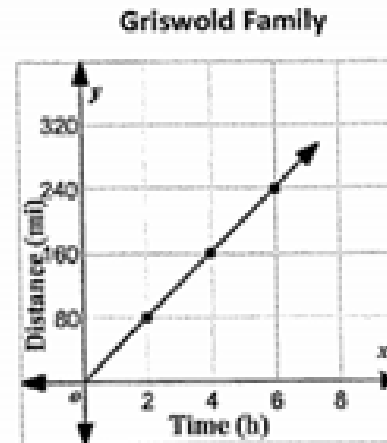
6) Two families are going on vacation and taking different routes. The table shows the number of miles y that the Miller family travels per hour x of travel. The graph shows the number of miles y that the Griswold family travels per hour x of travel. Compare the miles per hour for each family.

Miller's Rate of Change = 58 mi/h

Griswold's Rate of Change = ~~80 mi/h~~

$\frac{80}{2} = 40 \text{ mi/h}$

Miller Family	
Hours	Miles
1	58
3	174
6	290



Compare (Write a complete sentence):

The Griswold family is traveling at Slower rate & speed.

7) Johnny planted a tree that he bought from a tree nursery, that once planted grew 4 inches per month. After 6 months the tree was 63 inches tall. Assume the relationship is linear. Find and interpret the rate of change and the initial value. $m=4$ $x=6$ $y=63$

$$63 = 4(6) + b$$

$$63 = 24 + b$$

$$\begin{array}{r} -24 \\ -24 \\ \hline \end{array}$$

$$39 = b$$

Rate of Change = 4 inches/month

Initial Value = 39 inches

Interpretation of rate and initial value: The tree grows 4 inches every month and was 39 inches tall when planted

8) Determine whether each table is linear or nonlinear. SHOW WORK that proves table is linear or nonlinear and EXPLAIN.

A)

		+2	+2	+2
x	1	3	5	7
y	0	-5	-12	-21
		-5	-7	-9

Circle Answer
Linear or Nonlinear

Explanation: As x increases by 2, y decreases by a different amount

B)

		+3	+3	+3
x	-2	1	4	7
y	3	7	11	15
		+4	+4	+4

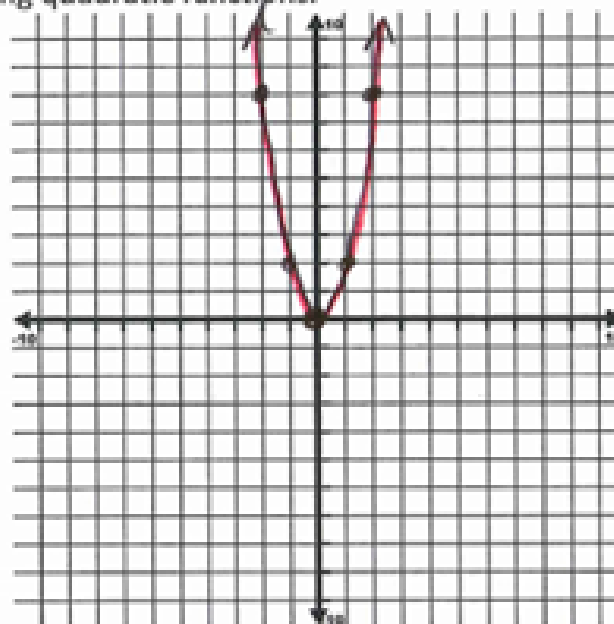
Circle Answer
Linear or Nonlinear

Explanation: As x increases by 3, y increases by 4 each time.

9) Complete the table and then graph the following quadratic functions.

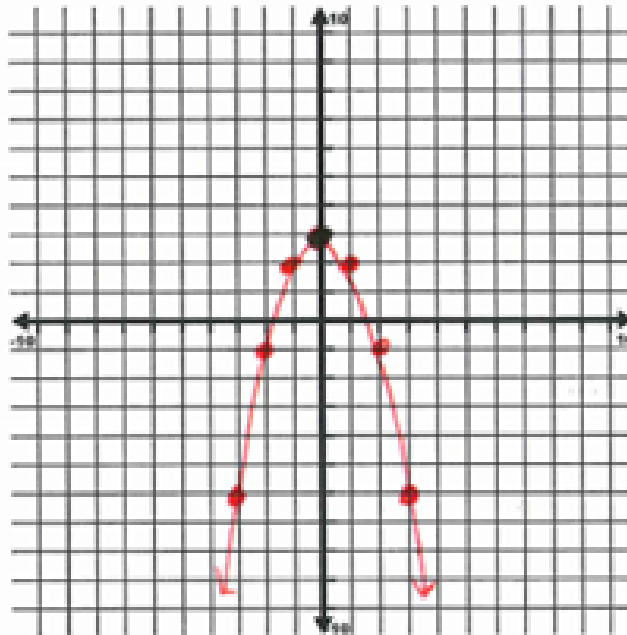
A) $y = 2x^2$

x	y
-3	18
-2	8
-1	2
0	0
1	2
2	8
3	18



B) $y = -x^2 + 3$

x	y
-3	-6
-2	-1
-1	2
0	3
1	2
2	-1
3	-6



C) $y = \frac{1}{2}x^2 - 9$

x	y
-6	9
-4	-1
-2	-7
0	-9
2	-7
4	-1
6	9

