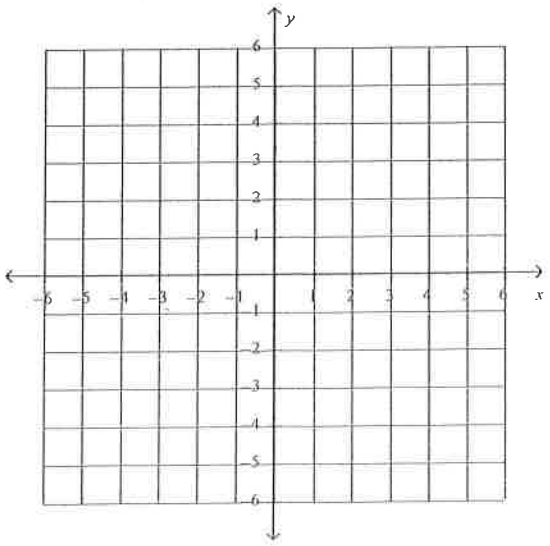
NAME _____ MATH 8

DATE _____ PER _____ HOMEWORK

1. Make a table of values and plot the following function: $y = 2x^2 - 2$.

x	$y = 2x^2 - 2$	y	(x, y)
-2			
-1			
0			
1			
2			



Is this linear or nonlinear, explain?

_____

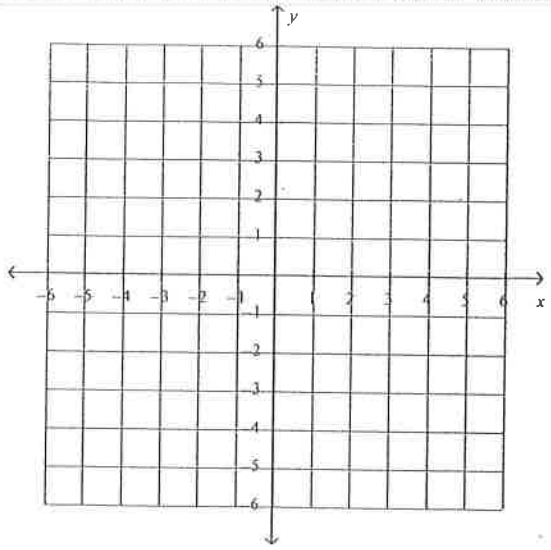
_____

_____

_____

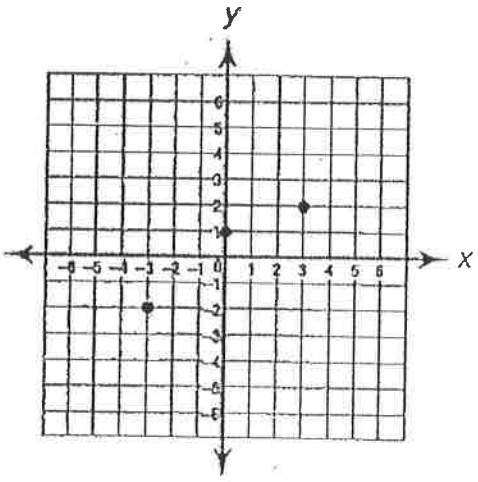
2. Graph the following table; determine whether it is linear or nonlinear.

x	y
- 4	4
-2	0
0	-4
2	-8



Multiple Choice:
Identify the choice that best completes the statement or answers the question.

3. Doreen is graphing an equation. So far, she has graphed these points.



What conclusion can you draw about the equation Doreen is graphing?

F It is linear.

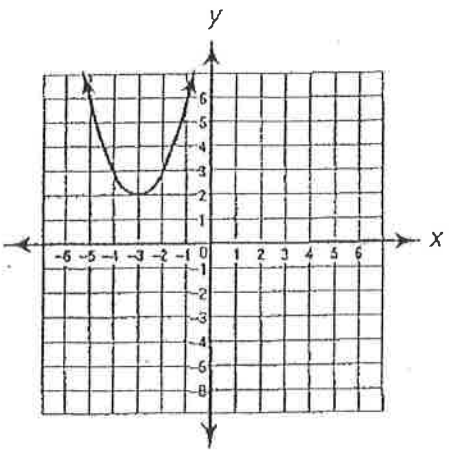
G It is nonlinear.

H It is impossible to tell whether it is linear or nonlinear until she graphs more points.

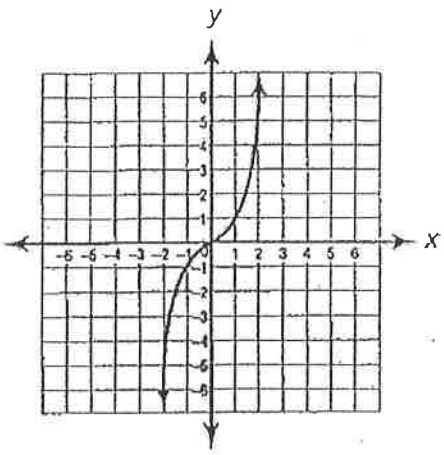
J It is neither linear nor nonlinear.

4. Which is the graph of a linear equation?

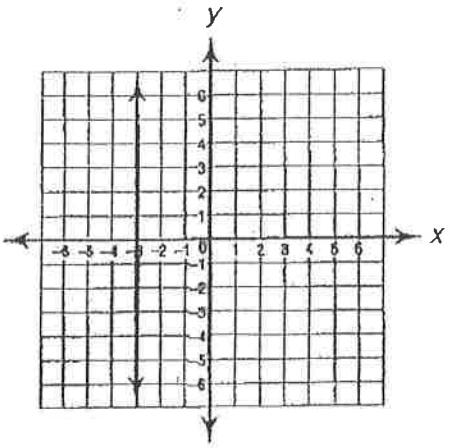
F



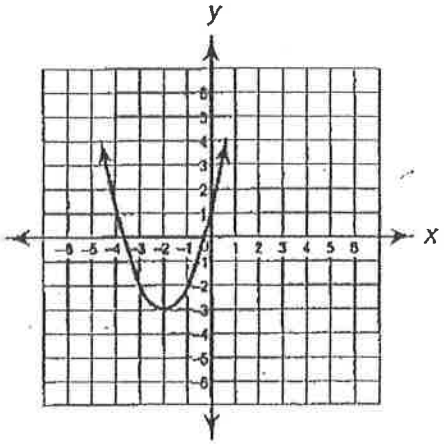
H



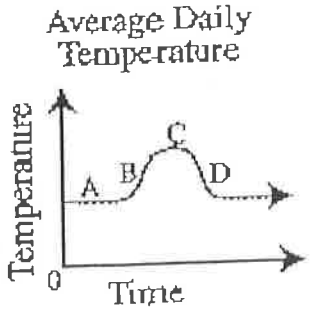
G



J

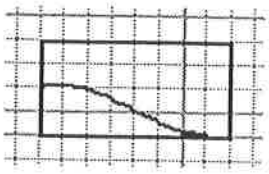


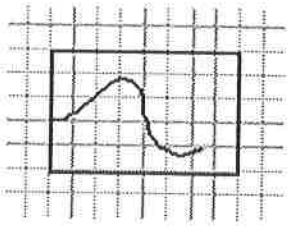
5. The graph below shows the average daily temperature over the period of a year. *Explain* how each labeled section of the graph relates to the four seasons.

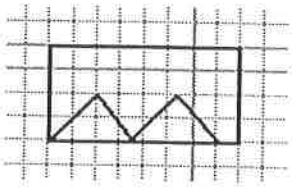


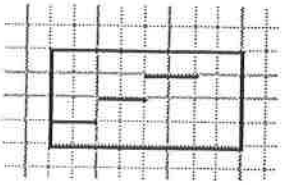
6. Which graph below most likely represents each of the following?

1. a person's body temperature as he enters a sauna and then cools off in a jacuzzi
2. the rise and fall of an elevator as it carries passengers from the ground floor to an observation tower
3. the cost to mail a package based on weight categories

I) 

II) 

III) 

IV) 

a) II; IV; I

b) II; III; IV

c) I; III; II

d) II; I; IV

7. Solve and check the following equation: $15 = -3(x-1)+9$