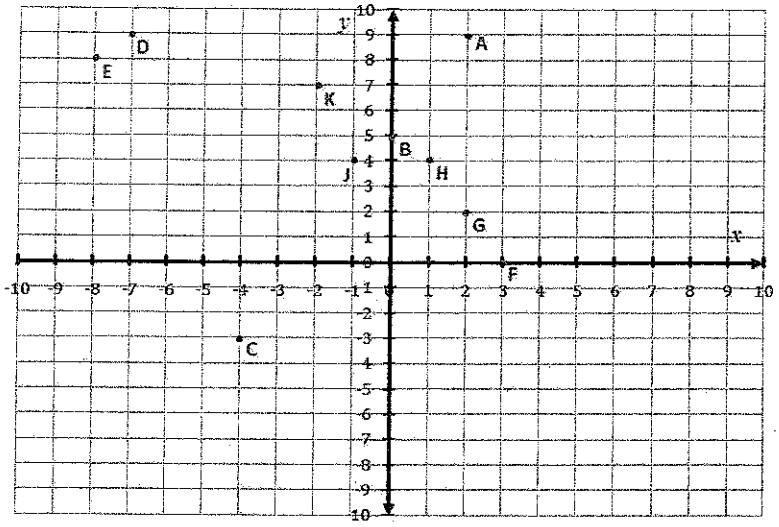
Tables and Graphs **Name** Key

The Coordinate Plane

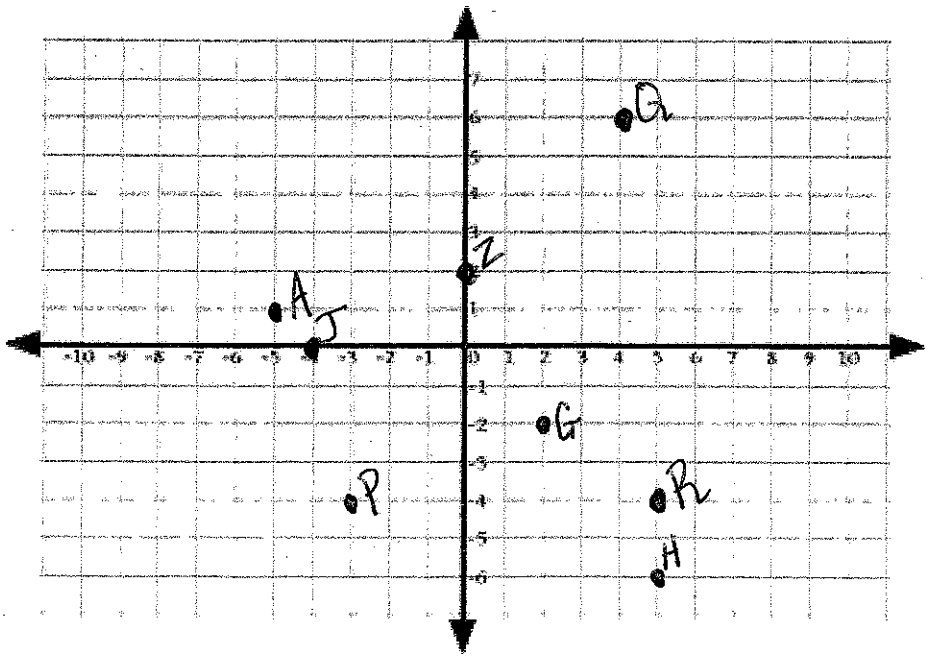
Directions: Identify the ordered pair and circle the quadrant of the points.



1. A (2, 9), (I), II, III, IV
2. B (0, 5), (I), II, (III), IV y-axis
3. F (3, 0), I, II, III, IV x-axis
4. C (-4, -3), I, II, (III), IV
5. E (-8, 8), I, (II), III, IV
6. G (2, 2), (I), II, III, IV
7. D (-7, 9), I, (II), III, IV

Directions: Graph the following ordered pairs on the coordinate plane.

8. G (2, -2)
9. H (5, -6)
10. Z (0, 2)
11. P (-3, -4)
12. A (-5, 1)
13. J (-4, 0)
14. Q (4, 6)
15. R (5, -4)

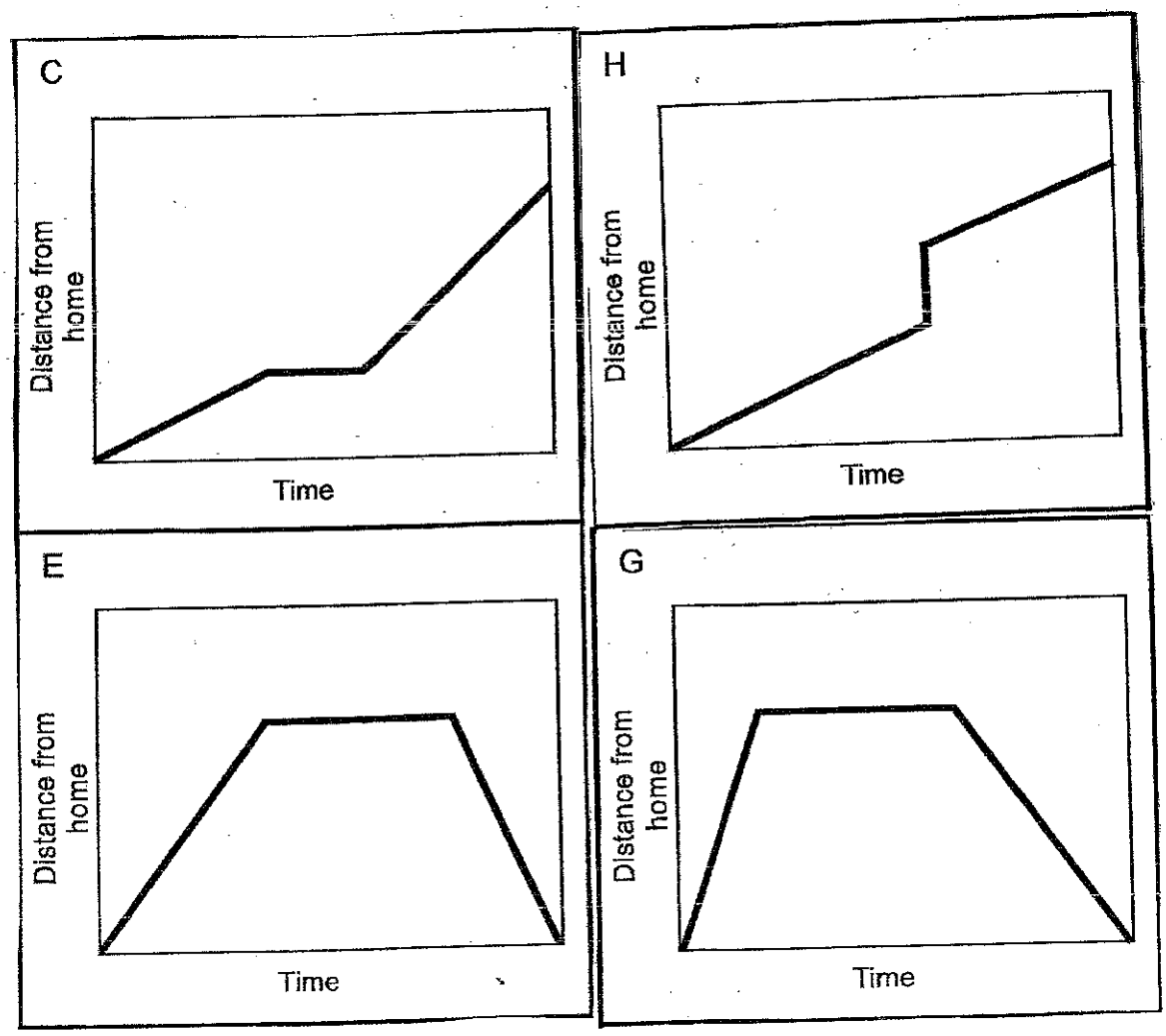


Interpreting Graphs

Interpreting Graphs

Directions: Match the letter to the corresponding description.

1. G Tom ran from his home to the bus stop and waited. He realized that he had missed the bus so he walked home.
2. E Opposite Tom's home is a hill. Tom climbed slowly up the hill, walked across the top, and then ran quickly down the other side. back home.
3. C Tom walked slowly along the road, stopped to look at his watch, realized he was late, and then started running.
4. H This graph is just plain wrong. How can Tom be in two places at once?

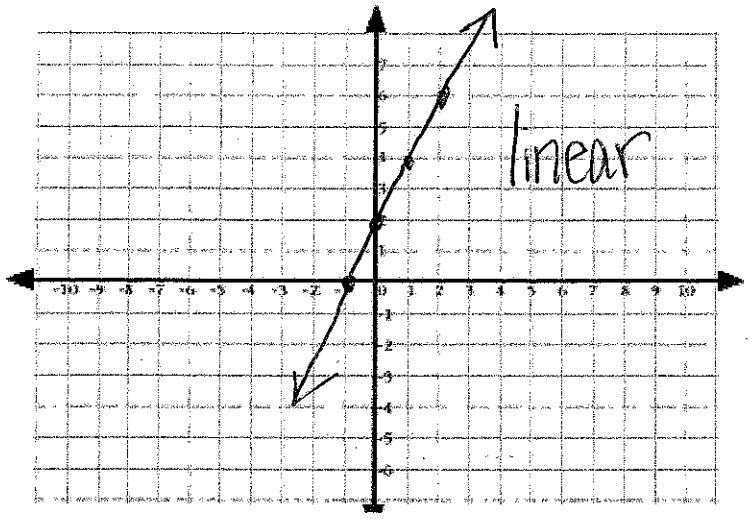


Directions: Complete the function table and graph.

Linear or Non-linear

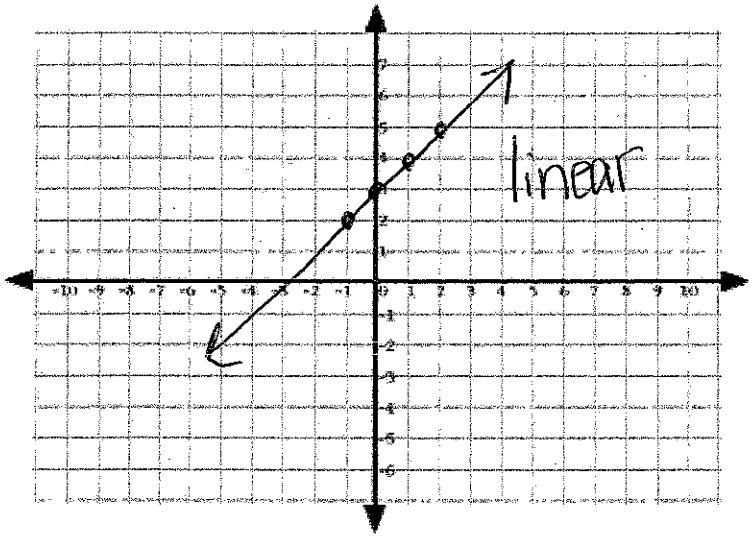
1. $2x + 2$

Input x	Rule $2x+2$	Output y	Ordered Pair (x,y)
-1	$2\cdot-1+2$ $-2+2$	0	(-1,0)
0	$2\cdot0+2$ $0+2$	2	(0,2)
1	$2\cdot1+2$ $2+2$	4	(1,4)
2	$2\cdot2+2$ $4+2$	6	(2,6)



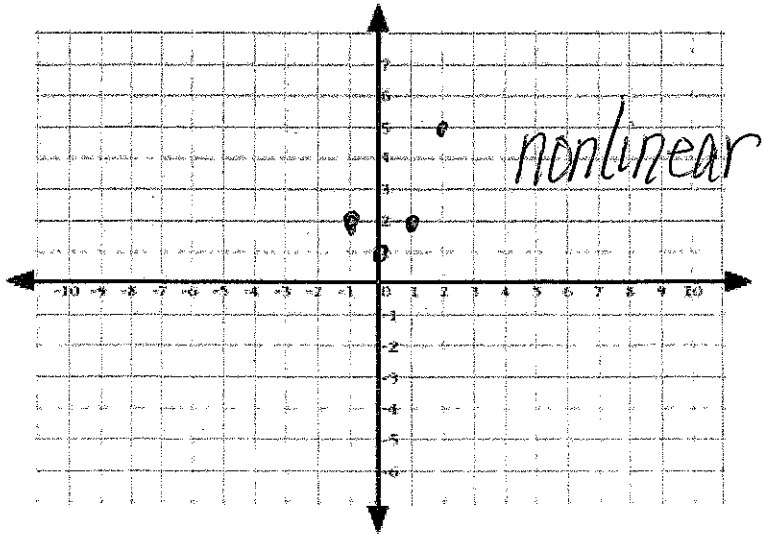
2. $x + 3$

Input	Rule	Output	Ordered Pair
-1	$-1+3$	2	(-1,2)
0	$0+3$	3	(0,3)
1	$1+3$	4	(1,4)
2	$2+3$	5	(2,5)



3. $x^2 + 1$

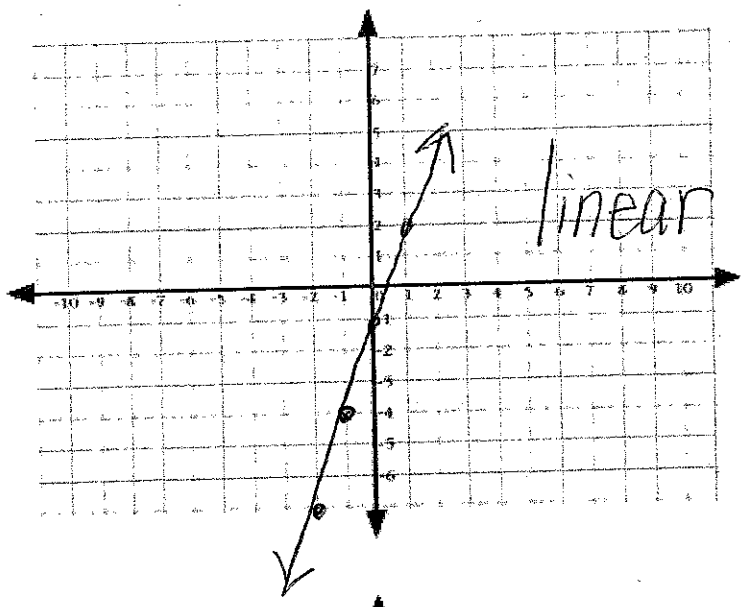
Input	Rule	Output	Ordered Pair
-1	$(-1)^2+1$ $1+1$	2	(-1,2)
0	0^2+1 $0+1$	1	(0,1)
1	1^2+1 $1+1$	2	(1,2)
2	2^2+1 $4+1$	5	(2,5)



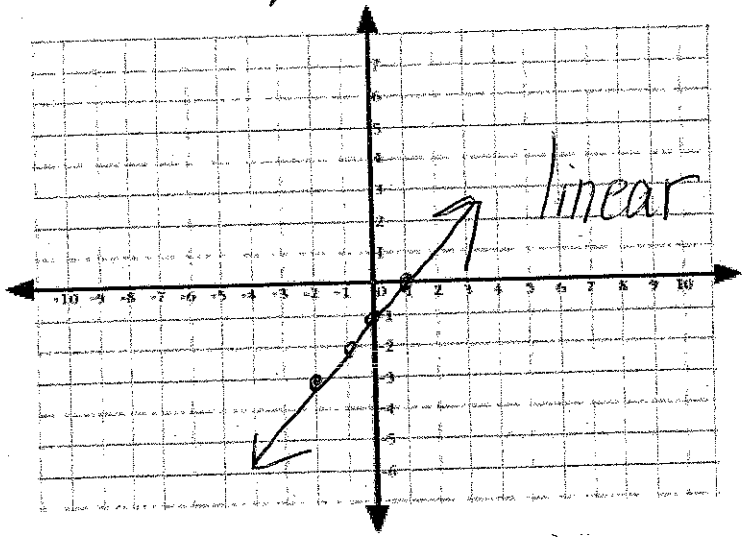
Linear or nonlinear

Directions: Complete the function table and graph.

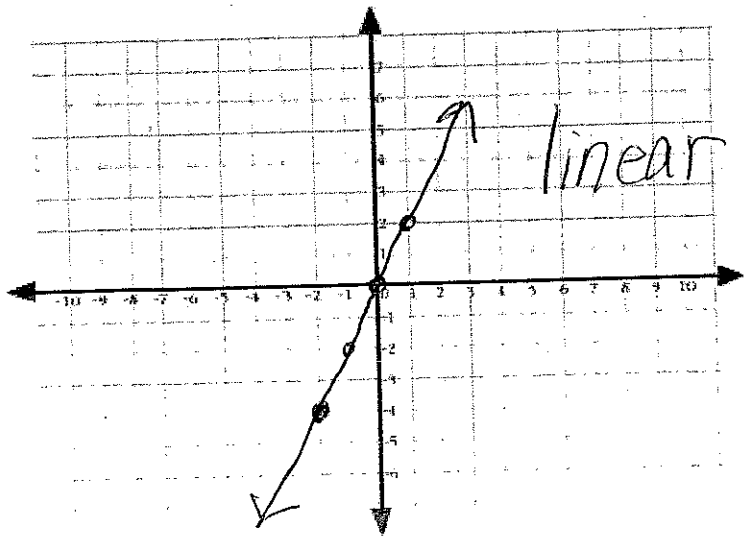
Input	Rule	Output	Ordered Pair
x	3x – 1	y	(x, y)
-2	3·-2-1 -6-1	-7	(-2,-7)
-1	3·-1-1 -3-1	-4	(-1,-4)
0	3·0-1 0-1	-1	(0,-1)
1	3·1-1 3-1	2	(1,2)



Input	Rule	Output	Ordered Pair
x	x – 1	y	(x, y)
-2	-2-1	-3	(-2,-3)
-1	-1-1	-2	(-1,-2)
0	0-1	-1	(0,-1)
1	1-1	0	(1,0)



Input	Rule	Output	Ordered Pair
x	2x	y	(x, y)
-2	2·-2	-4	(-2,-4)
-1	2·-1	-2	(-1,-2)
0	2·0	0	(0,0)
1	2·1	2	(1,2)



+, − ×, ÷

State whether each sequence of y-values is arithmetic or geometric. Then find y when n = 5.

1.)

n	1	2	3	4	5
y	14 ×2	28 ×2	56 ×2	112 ×2	224

geometric

2.)

n	1	2	3	4	5
y	4	8	12	16	20

arithmetic

Write a function that describes each sequence.

1.) 12, 24, 36, 48, …

n	Rule	y
1	$1 \cdot 12$	12
2	$2 \cdot 12$	24
3	$3 \cdot 12$	36
4	$4 \cdot 12$	48

2.) 13, 14, 15, 16, …

n	Rule	y
1	$1 + 12$	13
2	$2 + 12$	14
3	$3 + 12$	15
4	$4 + 12$	16