

From Tables to Equations: Classwork

1. The following tables show linear relationships. Write an equation for each. Show your work!

a.

x	y
0	10
2	13
4	16
6	19

b.

x	y
0	-9
5	-13
10	-17
15	-21

c.

x	-6	-3	0	3
y	22	28	34	40

d.

x	y
10	-16
20	-9
30	-2
40	5

e.

x	y
4	11
6	4
8	-3
10	-10

f.

x	-28	-24	-20	-16
y	-3	-5	-7	-9

2. Does the table represent a linear relationship?
If **yes**, write an equation for it. If **no**, clearly show how you know using slope.

a.

x	y
0	12
5	8
10	4
15	0

b.

x	y
4	1
8	2
12	4
16	8

c.

x	21	28	35	42
y	12	8	6	4

d.

x	0	8	16	24
y	11	11	11	11

e.

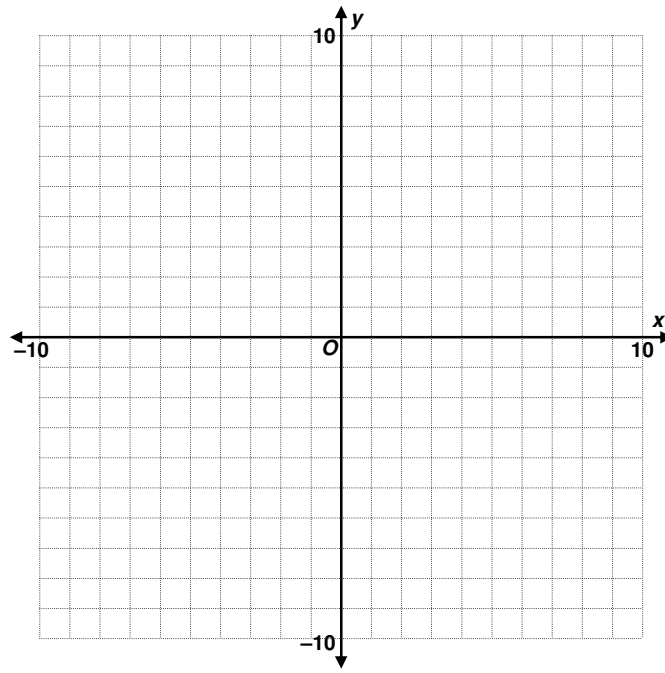
x	y
3	-3
6	-1
9	1
12	3

f.

x	y
24	-9
30	-12
36	-16
42	-22

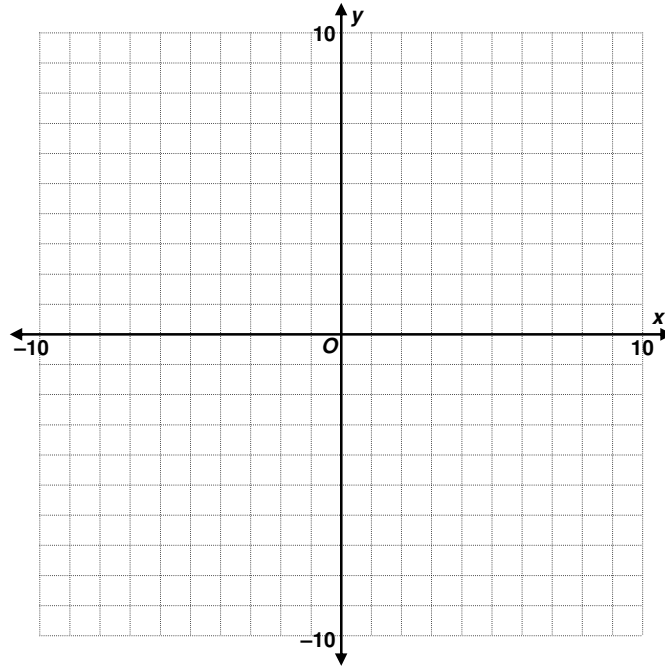
3. Is the table below linear?
Prove it in two ways!

x	y
-4	3
0	5
2	6
8	9



4. Is the table below linear?
Prove it in two ways!

x	y
-8	4
-7	6
0	8
4	10



5. You really only need two points to write an equation for a line! Write an equation for each linear relationship represented in the tables below. Show your work!

a.

x	y
0	10
1	3

b.

x	y
8	12
16	15

c.

x	y
25	7
40	-5

Tables to Equations: Homework

6. Harry has an aquarium that has a leak! He keeps track of the water level in a table.

a. What is the y -intercept of the table?

Time (minutes)	Water Height (in)
0	16
5	13
10	10
15	7

b. What does the y -intercept represent in the context of the story?

c. What is the slope of the table?

d. What does the slope represent in the context of the story?

e. Write an equation that calculates the height of the water w after any number of minutes m .

7. The following tables show linear relationships. Write an equation for each. Show your work!

a.

x	y
0	-11
5	-14
10	-17
15	-20

b.

x	0	3	6	9
y	10	6	2	-2

c.

x	y
4	17
6	24
8	31
10	38

d.

x	30	40	50	60
y	9	10	11	12