



Graphs and linear Equations (Answers)

1. Label the following:

- A.) Coordinate Plane
- B.) 1st Quadrant
- C.) 2nd Quadrant
- D.) 3rd Quadrant
- E.) 4th Quadrant
- F.) Point
- G.) X-Axis
- H.) Y-Axis
- I.) Origin
- J.) Coordinates
- K.) X- Coordinate
- L.) Y- Coordinate

A 1. (6x+3y=15)

I. Table

x	1	2	3	4	5	6
y	3	1	-1	-3	-5	-7

II. Six Coordinate pairs: (1,3) (2,1) (3,-1) (4,-3) (5,-5) (6,-7)

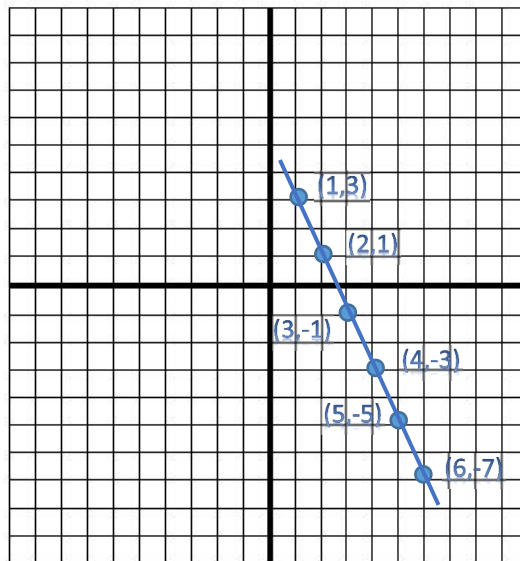
III. Identify the mid points and end points:

A	(1,3)
B	(6,-7)
M	(3.5,-2)

IV. Gradient:

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{-7 - 3}{6 - 1} = \frac{-10}{5} = -2$$

V. Graph the Coordinates and ketch the line:
s



2. ($3x+y=-12$)

I. Table

x	1	2	3	4	5	6
y	-15	-18	-21	-24	-27	-30

II. List 6 coordinate pairs: **(1,-15) (2,-18) (3,-21) (4,-24) (5,-27) (6,-30)**

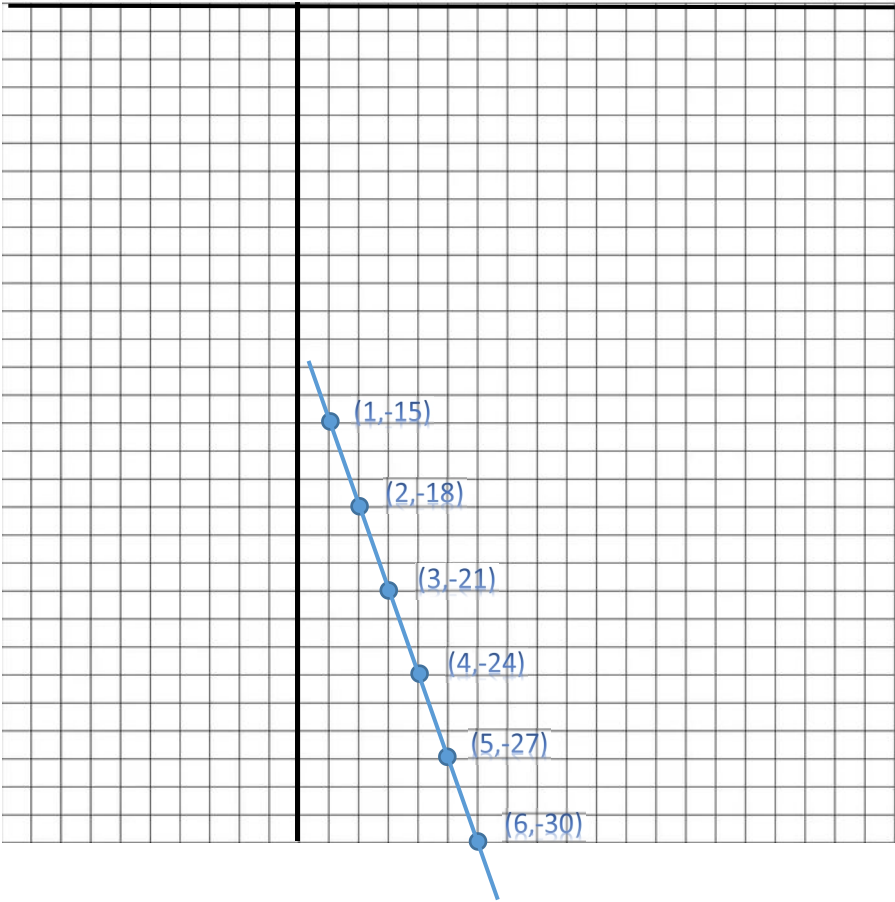
III. Identify the endpoints and midpoints:

A	(1,-15)
B	(6,-30)
M	(3.5,-7.5)

IV. Gradient:

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{-30 - (-15)}{6 - 1} = \frac{-30 + 15}{5} = \frac{-15}{5} = -3$$

V Graph the points and sketch the line:



3. $(8x = -24 + 2y)$

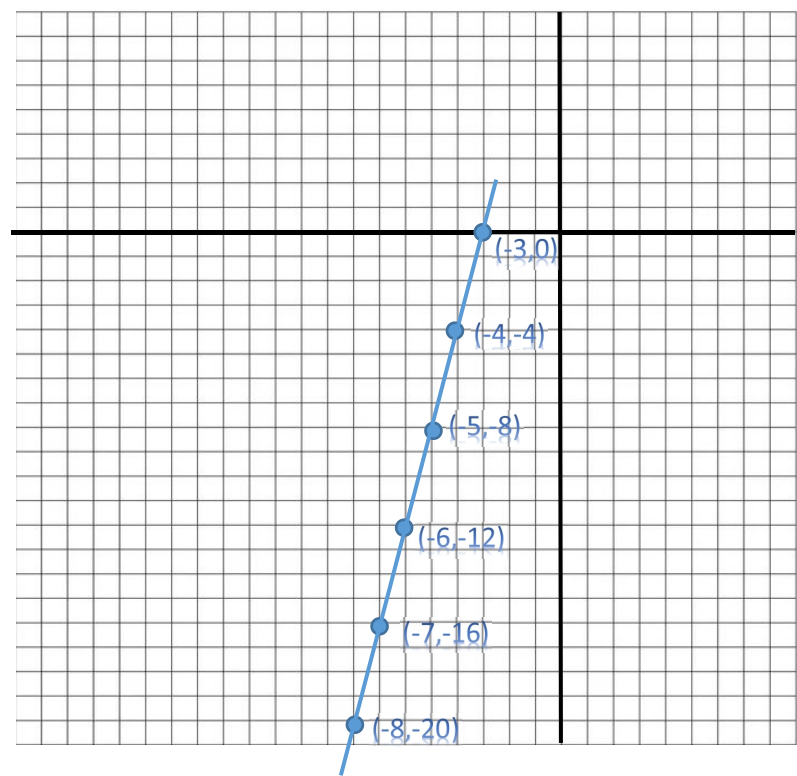
I. Table

X	-8	-7	-6	-5	-4	-3
Y	-20	-16	-12	-8	-4	0

II. Six Coordinate pairs: $(-8, -20)$ $(-7, -16)$ $(-6, -12)$ $(-5, -8)$ $(-4, -4)$ $(-3, 0)$

III. Gradient: $\frac{y_2 - y_1}{x_2 - x_1} = \frac{0 - (-20)}{-3 - (-8)} = \frac{0 + 20}{-3 + 8} = \frac{20}{5} = 4$

IV. Graph the points and Sketch the line:



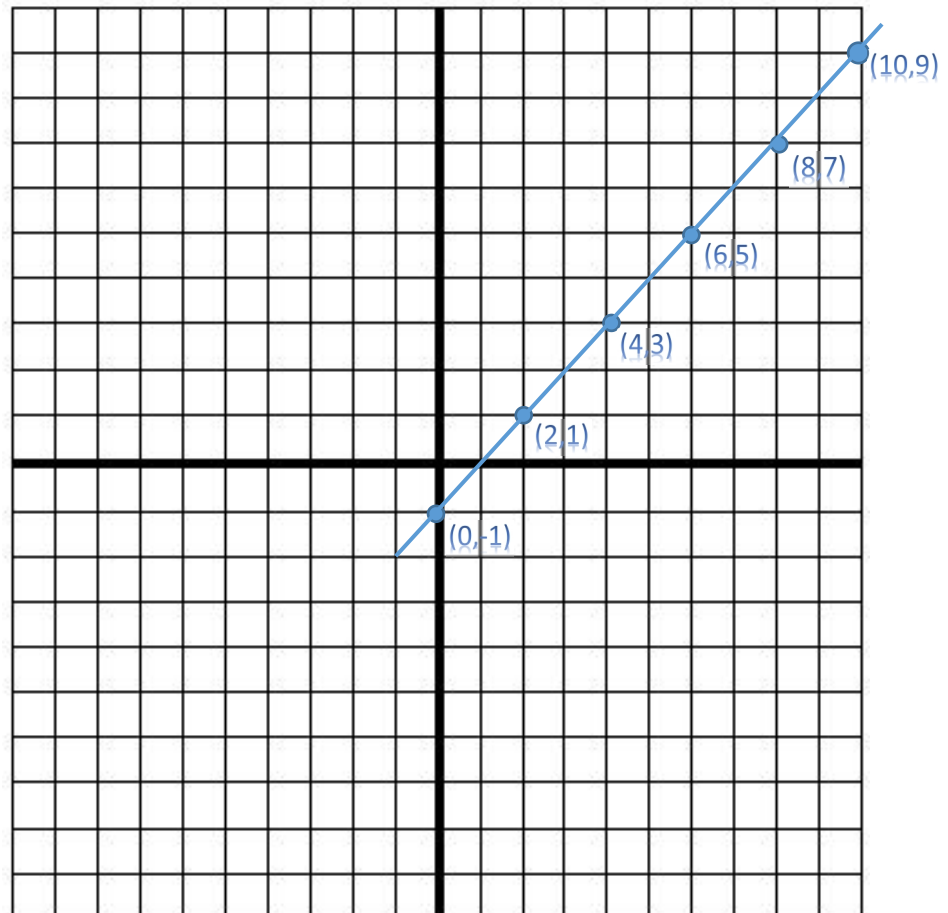
B.1

X	0	2	4	6	8	10
Y	-1	1	3	5	7	9

1.) Create a linear equation: **X - Y = 1**

2.) List six coordinate pairs: **(0,-1) (2,1) (4,3) (6,5) (8,7) (10,9)**

3.) Graph the coordinate points and sketch the line



2.

x	2	4	6	8	10	12
y	-4	-3	-2	-1	0	1

1.) Create a linear equation: **X - 2Y = 10**

2.) List six coordinate pairs:

(2,-4) (4,-3) (6,-2) (8,-1) (10,0) (12,1)

3.) Graph the coordinate points and sketch the line of best fit on the graph:



3.

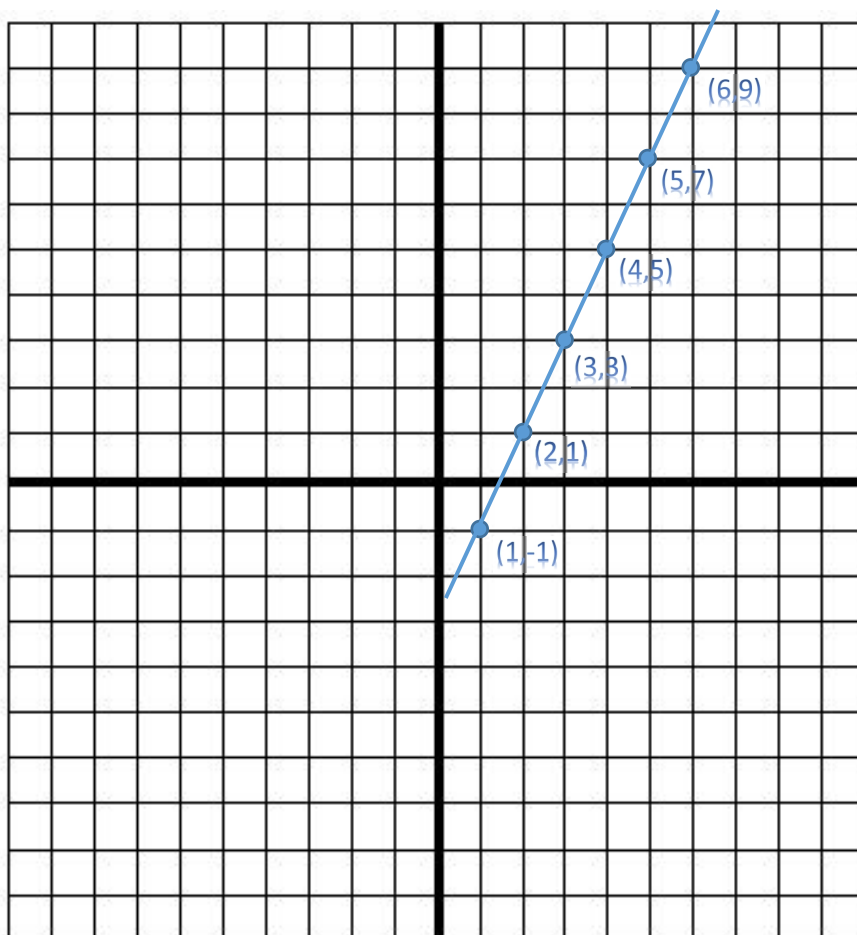
X	1	2	3	4	5	6
Y	-1	1	3	5	7	9

1.) Create a linear equation: **$2X = Y + 3$**

2.) List six coordinate pairs:

(1,-1) (2,1) (3,3) (4,5) (5,7) (6,9)

3.) Graph the coordinate points and sketch the line of best fit on the graph:



-----END-----