

Plotting Information - Keeping it all Straight, he he

Graphing a relationship or data, gives us a visual presentation, that may be more beneficial for understanding than a formula or table of values.

Learning Goal:

By the end of today, I will be able to plot data on a coordinate axis.

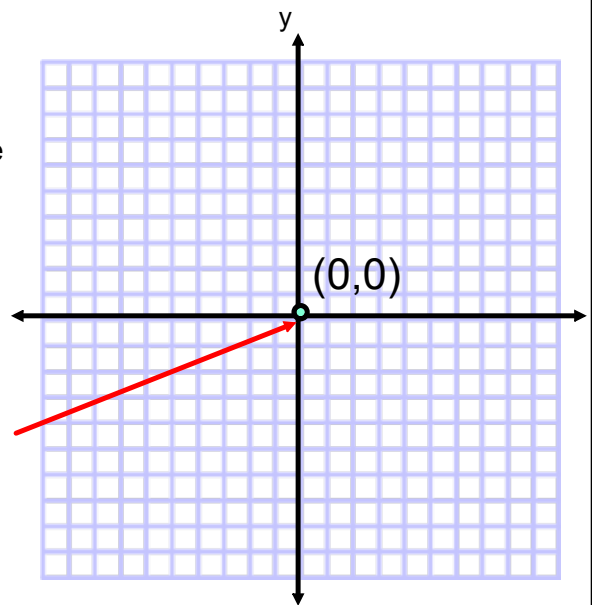
Cartesian Coordinate System or "X - Y Grid"

The "grid" coordinate system is created by putting two number lines together, one vertical (up/down) and one horizontal (left/right).

Similar to regular number lines, travelling to the RIGHT is considered a positive direction, while LEFT is considered a negative direction.

Similar to a thermometer, travelling to UP is considered a positive direction, while DOWN is considered a negative direction.

The very centre point is called the ORIGIN and has a location of $(0,0)$, where its position is given by an (x,y) coordinate.



Plotting Points on a Grid using Coordinates (x,y)

Plot the following points:

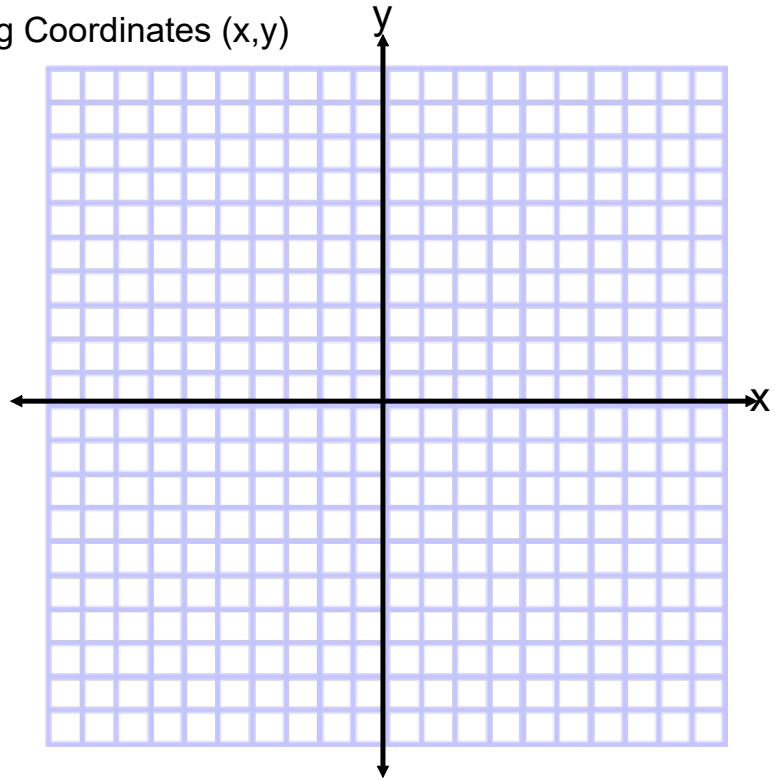
(x,y)

A (1, 3)

B (-4, 6)

C (-5, -3)

D (7, 0)



Plotting Points on a Grid using Coordinates (x,y)

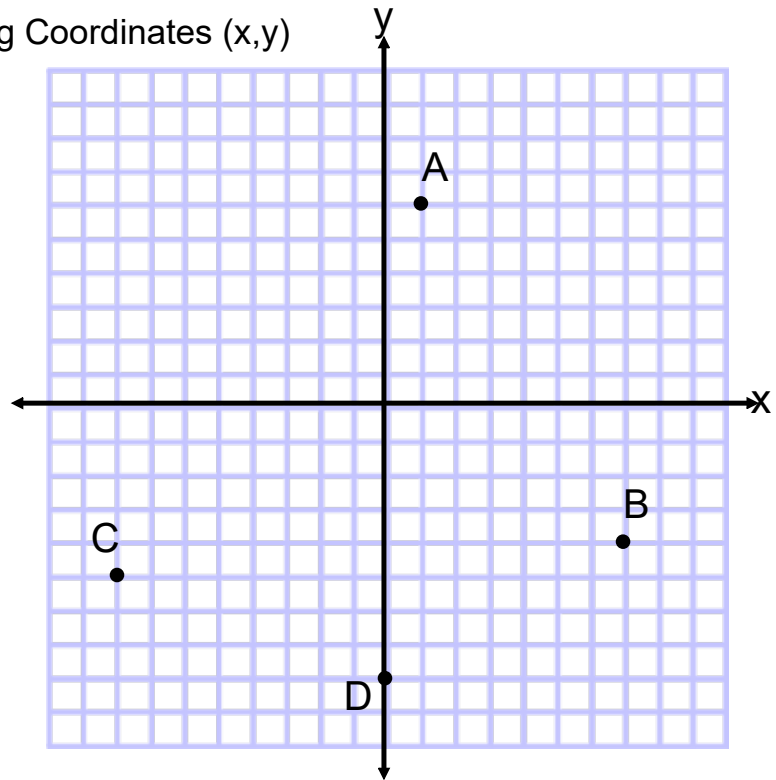
State the location of the points:

A (,)

B (,)

C (,)

D (,)



Find the value of "y" for the given value of "x".

y is equal to three times the x value

(a) $y = 3x$ when $x = 5$

y is equal to twice the x value and one more

(b) $y = 2x + 1$ when $x = 3$

y is equal to the negative of the x value and four more

(c) $y = -x + 4$ when $x = -2$

Plot the following points:

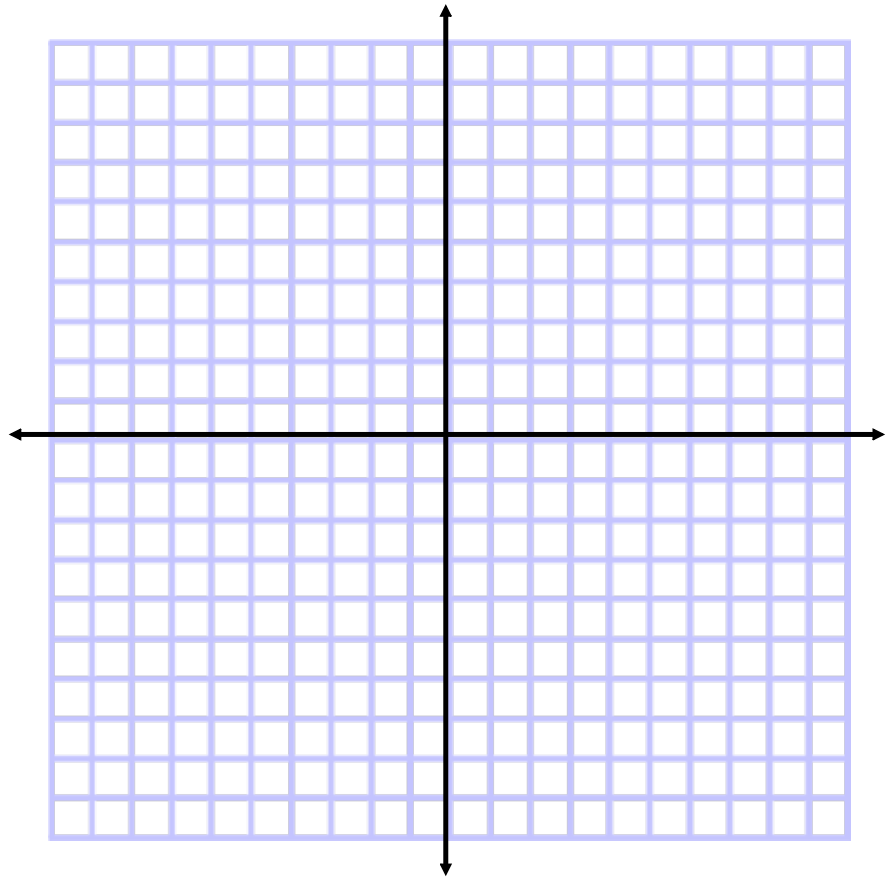
A(3,4)

B(-6,-1)

C(8,0)

D(0,-4)

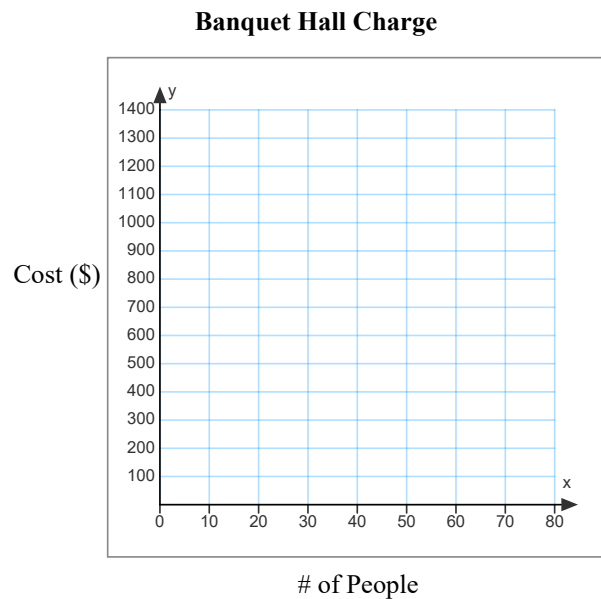
E(-5,0)



Construct a Table of Values and a Scatter Plot to Represent a Relation

The cost of a banquet at Juan's Banquet Hall is \$450 for the room rental, plus \$15 for each person served. Create a table of values and a scatter plot to represent the relation between the number of people and the cost.

# of People	Cost (\$)
0	
10	
20	
30	
40	
50	
60	



Consider this pattern:



Figure 1



Figure 2



Figure 3

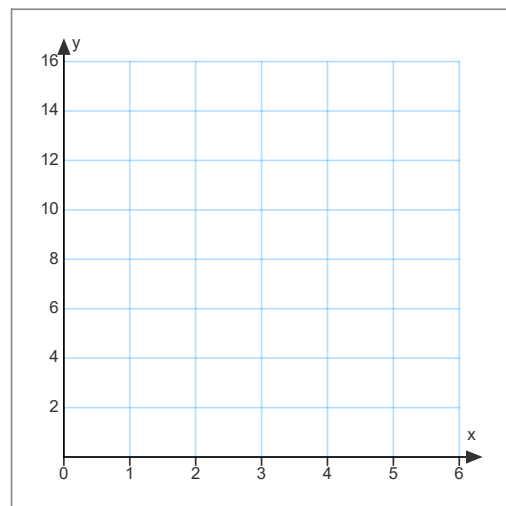


Figure 4

Make a table of values and draw a scatter plot comparing the figure number to the number of stars in each figure.

Figure Number	Number of Stars
1	
2	
3	
4	
5	
6	

Star Pattern



Questions:

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Pg. 141 A - G

Attachments

XY_AXIS_82429532-7E2E-4FBC-9AB8-B7A9DAC59910.galleryitem