

Learning Goal

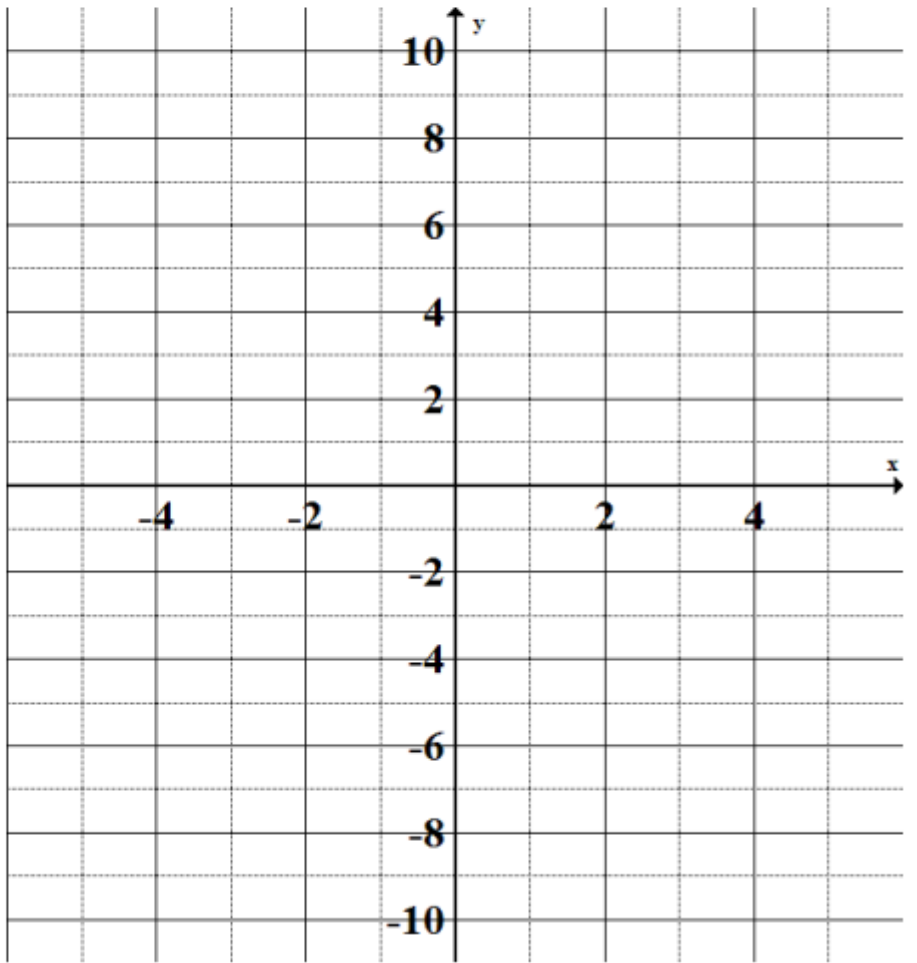
Minds on

Action!

Consolidation

Graphing from a TOV

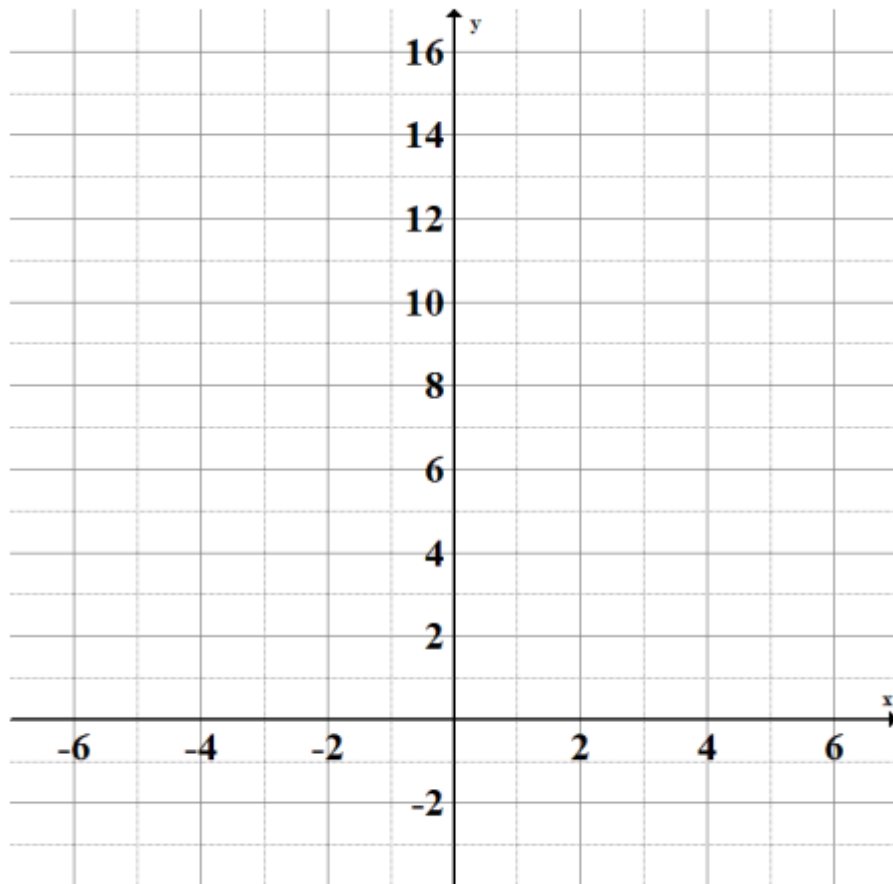
x	y
-3	-6
-2	-3
-1	0
0	3
1	6
2	9



Graphing $y = x^2$

If you were asked to graph the function $y = x^2$, using a table of values, how would you do it?

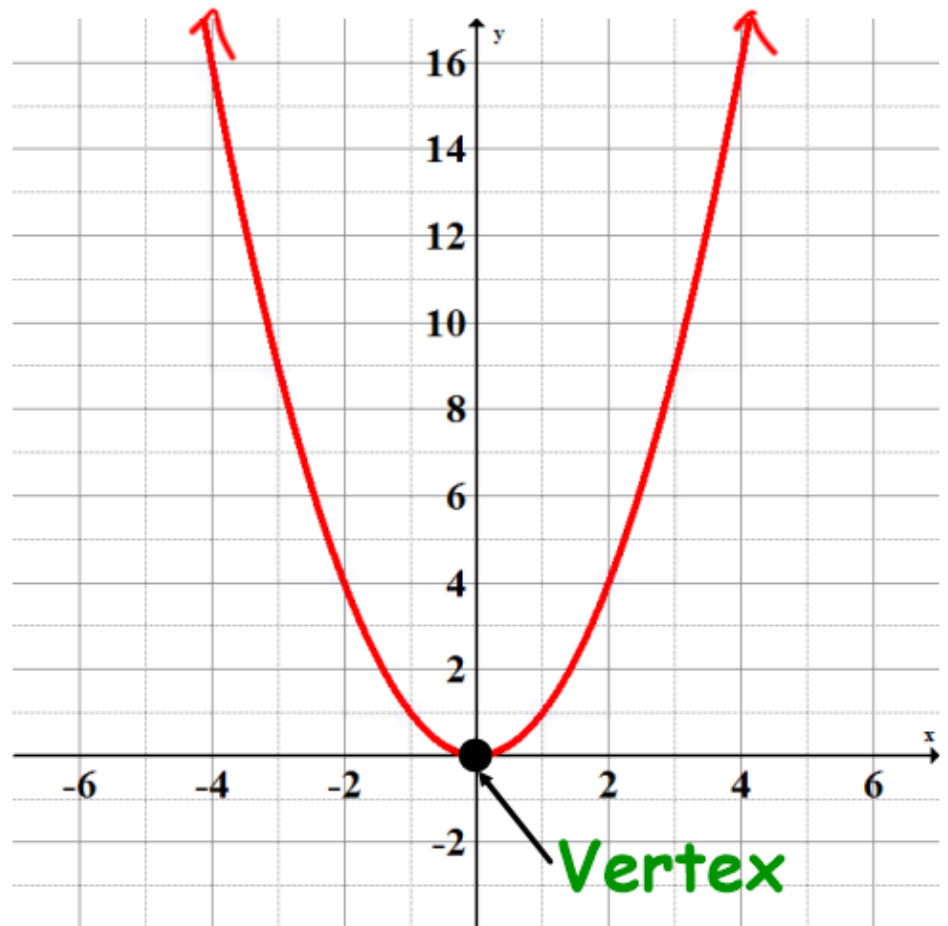
x	y
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Graphing $y = x^2$ - Step Pattern

Table of Values?

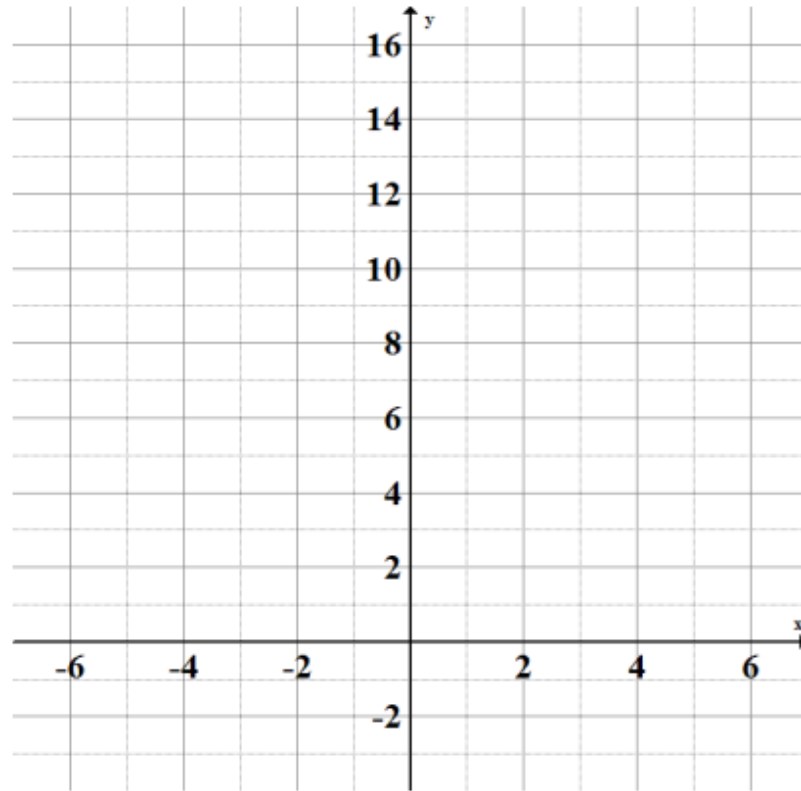
x	y
-3	9
-2	4
-1	1
0	0
+1	1
+2	4
+3	9



Graphing $y = x^2$

To graph the function $y = x^2$, plot the **vertex** at $(0, 0)$.

Then use the step pattern (over 1 up 1, over 1 up 3, over 1 up 5, etc...)



First and Second Differences

$$y = x^2$$

x	y	First Differences	Second Differences
-3			
-2			
-1			
0			
1			
2			

Summary

If the first differences in a table of values are equal, the equation forms a _____.

If the second differences in a table of values are equal (and not 0) the equation forms a _____.

Equation:

x	y	First Differences	Second Differences
-3			
-2			
-1			
0			
1			
2			

