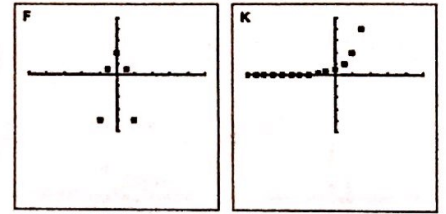


**Problem 2 - I Like the Way You Think (Page 28)**

1. What do these two graphs have in common?

usually integer values

These graphs are made up of only dots or discrete data.

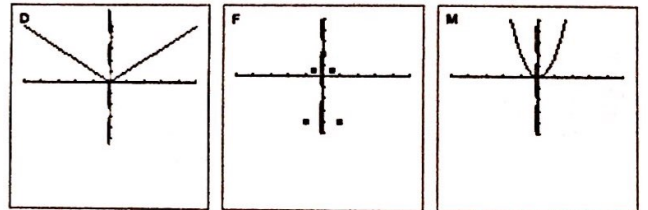


This type of data can be counted, like the number of students in a class or the number of jelly beans in a jar. the result of rolling 2 dice

When the data points are connected by a line, the data is continuous. This type of data can be measured and take on a range of values, such as height, weight, etc. including decimals or fractions

2. Why are these five graphs grouped together?

These graphs have vertical symmetry.

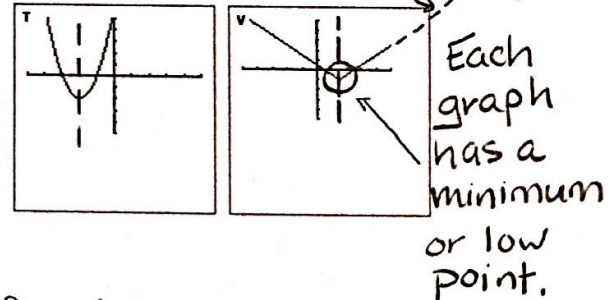


Draw a vertical line through the middle of each graph so the image is the same on both sides. Symmetry does not need to go through the origin (0,0).

Do the graphs have horizontal symmetry? Why or why not?

No, you cannot draw a horizontal line that would divide the graphs into two equal images. If you could, the graphs would not be functions.

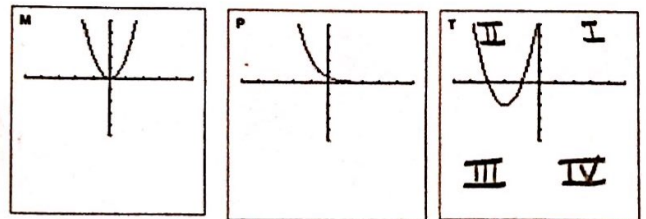
may need to extend the graph



3. True or False? These graphs are grouped together

because each graph only goes through two quadrants.

Explain your reasoning. False, if you extend Graph T, it goes through the 1<sup>st</sup> quadrant. Graph T goes through 3 quadrants.



How are the quadrants numbered?

The lines and curves on all these graphs extend beyond what we can see? How far do they go?

To infinity

4. Why are these four graphs grouped together? What do you notice about the graphs?

For each  $x$ -value, there is more than one  $y$ -value.

These graphs fail the vertical line  
test.

