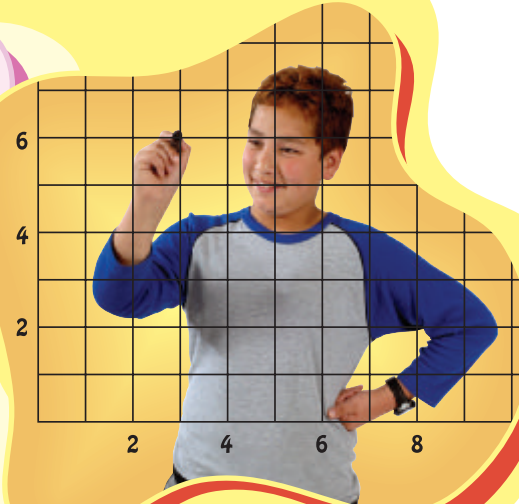
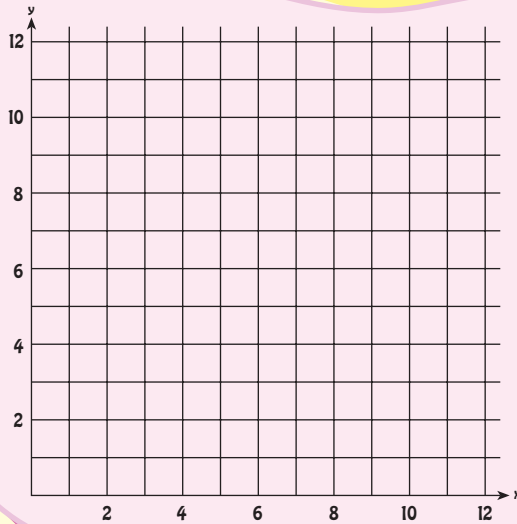


Family Likeness

You need square grid paper

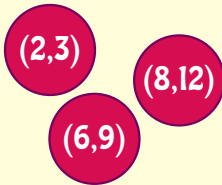
Activity

Label a grid like this:



1. Each counter names a point that can be marked on the grid. The three points in each set share a “family likeness”:

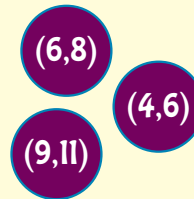
i.



ii.



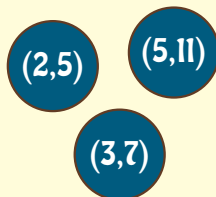
iii.



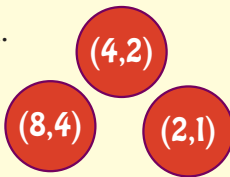
iv.



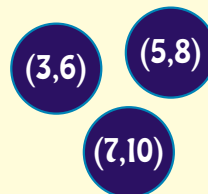
v.



vi.

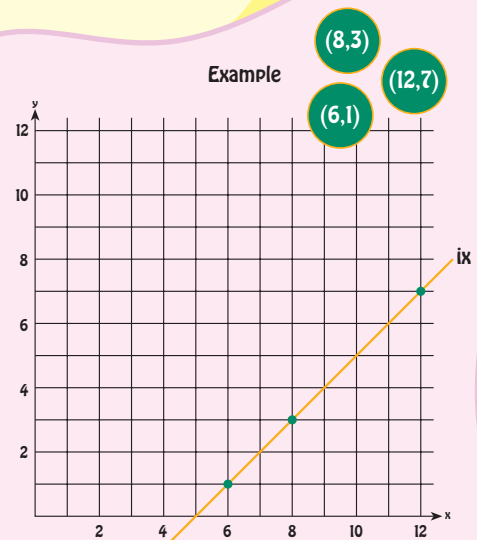


vii.



- Mark each set of three points on the grid and draw a line through them. Continue the line to the edges of the grid and label it with its Roman numeral as in this example:
- Name (as an ordered pair) one other point that belongs to each set.
- Decide if $(0,0)$ belongs to that set.

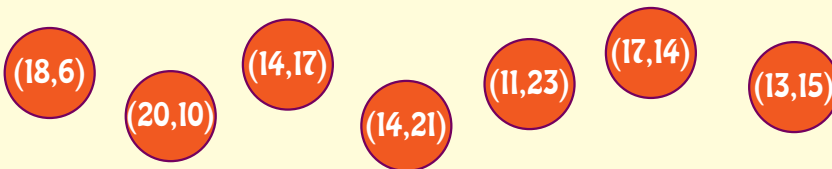
Example



2. For each set, find a rule (the family likeness) that you can use to check if other points also belong to it.



3. These points lie outside the boundary of the graph you have drawn, but each belongs with one of the seven sets in question 1. Use the rules you worked out in question 2 to decide which point belongs with which set.



4. Create two of your own sets of ordered pairs. $(0,0)$ must belong to one of your sets.

Double and take 1.

