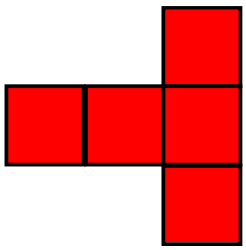
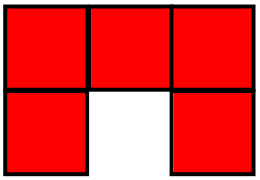
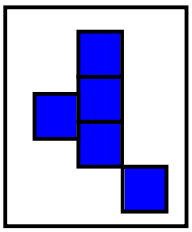
Fun with 'Pentominoes'

Use squared paper and pencil, square tiles, cubes, multilink, Area ITP or any square shapes

How many different patterns can you make by joining five squares? Squares must join edge to edge.





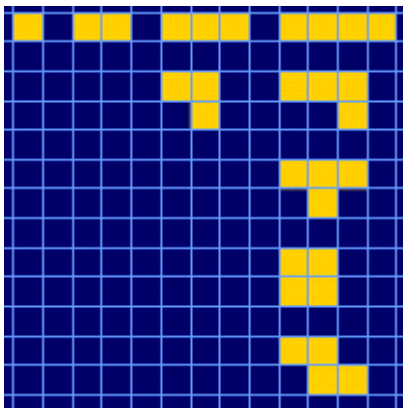


- How will you organise your shapes to make sure you have found them all?
- If you use 4 squares how many shapes are there? What about 3 squares? Can you find any patterns?

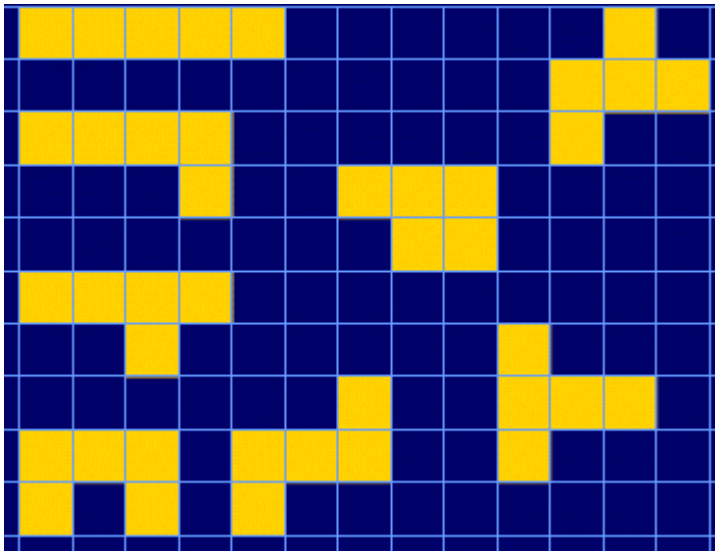
Learning and Teaching Objectives

- Use a systematic approach to solve a problem
- Develop an appropriate recording system
- Recognise rotational and reflective symmetry
- Describe a rule of a pattern

Pentominoes Solution



results for 1, 2, 3 and 4 squares



results for 5 squares

reflections or rotations of shapes are not counted as 'different'

a useful problem to show children that patterns should not be predicted too quickly, and that some problems have patterns that are not within their maths knowledge to describe