Playing Around With 30° 60° 90° Triangles

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INTRODUCTION

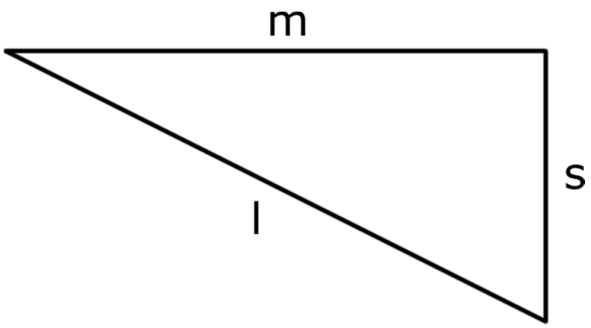
These are some ideas which can be used in KS1 to KS3 classrooms, exploring the geometry of 30, 60, 90 triangles

MATHEMATICAL CONTENT

- Making and naming shapes
- Symmetry
- Algebraic coding

APPLICABILITY

KS1 – KS3



How many shapes can be made by joining two of these triangles by sides of the same length?

What are the names of the shapes so formed?

What are the symmetries of each shape?

If the lengths of the sides are labelled s (for shortest side) m (for middle length) and l (for longest side), the perimeter of the above triangle is: s + m + l

What are the perimeters of the shapes when two triangles are joined?

What about joining three triangles?

Try to prove you have found all possible shapes made using 2, 3 or 4 triangles.