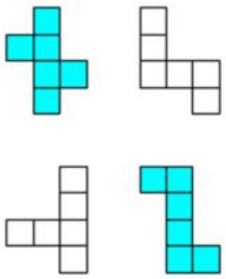
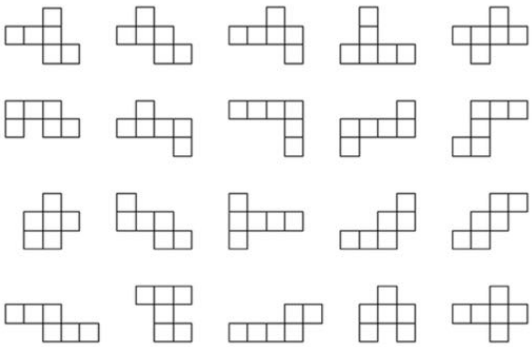
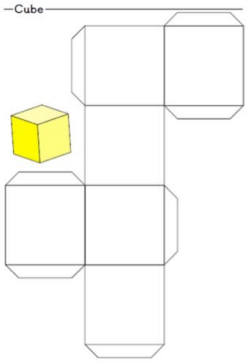
CUBE NETS



1.Some arrangements of six squares form the net of a cube, others do not. Which of these arrangements are nets of cubes and which are not.



2. Which of these diagrams is the net of a cube?



3. Draw this net and make your own cube. You might draw the net on squared paper, prick through the vertices to mark them on scrap card, join the prick marks, and cut out your net.

How many faces, edges and vertices does a cube have?

Make a list of the geometrical properties of the cube that you can observe.

Explain how you know that the cube is a regular polyhedron.

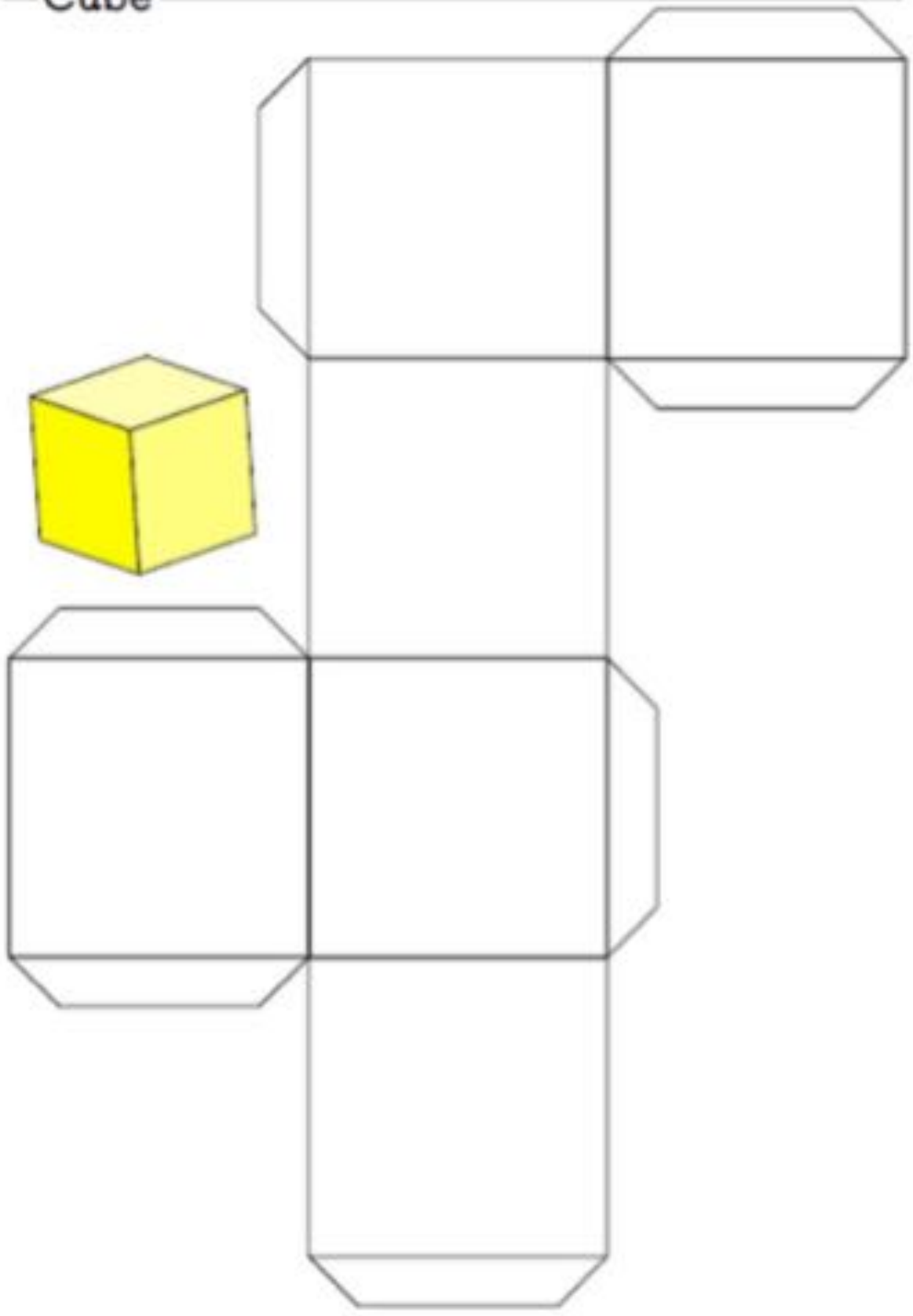
HELP

Colouring the faces in 6 different colours makes it much easier to describe the properties of the cube.

NEXT

Draw some sketches of a cube and mark in the planes of reflective symmetry (mirror planes) and the axes of rotational symmetry.

Describe the 9 mirror planes that cut the cube in half so that each half of the cube is a reflection of the other.

Describe the 13 axes of rotational symmetry about which the cube can be rotated into new positions in which it occupies the same space after the rotation as before the rotation. What is the order of rotational symmetry for each axis?

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