

# Sort 2D shapes

1 Draw lines to sort the shapes into groups.

A row of five colored shapes: a blue triangle, a green house-shaped pentagon, an orange regular pentagon, a pink right-angled triangle, and a yellow arrow-shaped pentagon. Below them are two empty ovals labeled 'triangles' and 'pentagons'. Blue lines connect the shapes to the groups: the blue triangle to 'triangles', the pink triangle to 'triangles', the green house shape to 'pentagons', the orange pentagon to 'pentagons', and the yellow arrow shape to 'pentagons'.

2 How have the shapes been sorted?

Two circles containing sorted shapes. The first circle contains three blue shapes: a parallelogram, a diamond, and a square. The second circle contains four orange shapes: two semi-circles and two circles.

3 Eva sorts some shapes.

Two circles labeled 'triangles' and 'hexagons'. The 'triangles' circle contains three pink triangles of different orientations. The 'hexagons' circle contains three green shapes: two L-shaped polygons and one regular hexagon.

a) Is Eva correct? Yes

How do you know?

b) Draw a group of three different pentagons.

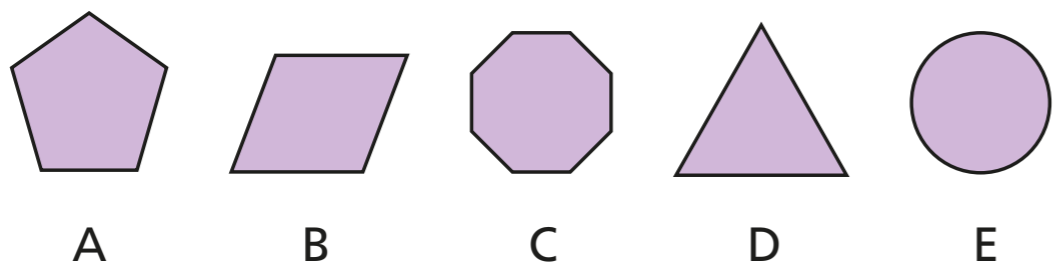
e.g.

A large circle labeled 'pentagons' containing three hand-drawn blue pentagons: a house-shaped pentagon, a regular pentagon, and an arrow-shaped pentagon.



- 4 a) Sort the shapes in order of the number of sides.

Start with the shape that has the fewest sides.

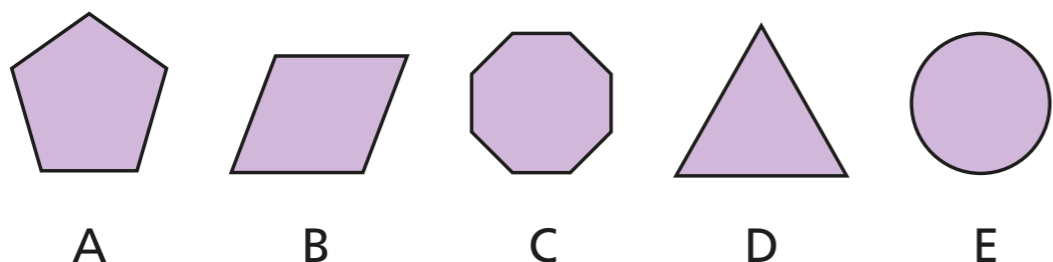


fewest most

E   D   B   A   C

- b) Sort the shapes in order of the number of vertices.

Start with the shape that has the fewest vertices.



fewest most

E   D   B   A   C

- c) What do you notice about your answers to part a) and part b)?



- 5 Draw three different shapes in each group.



shapes with 4 sides

e.g.

shapes with an odd number of vertices

e.g.

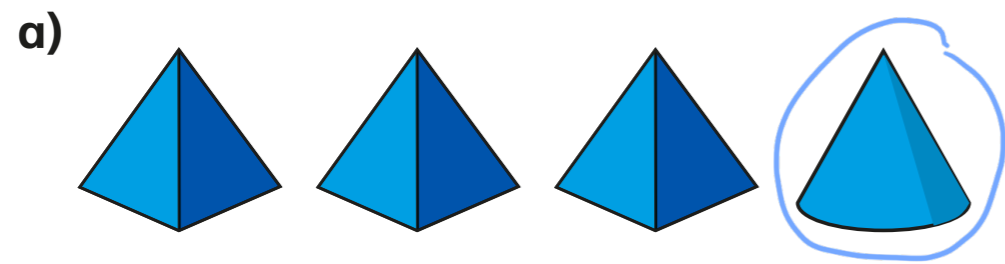
shapes with an even number of sides

e.g.

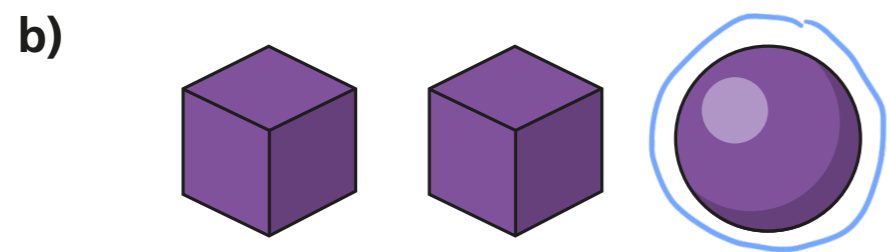


# Sort 3D shapes

1 Circle the odd one out in each group and complete the sentences.



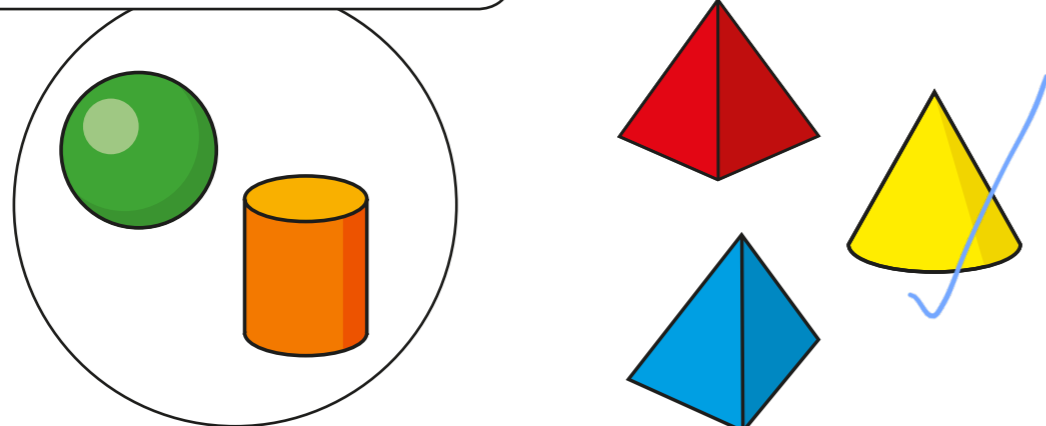
The odd one out is a cone.



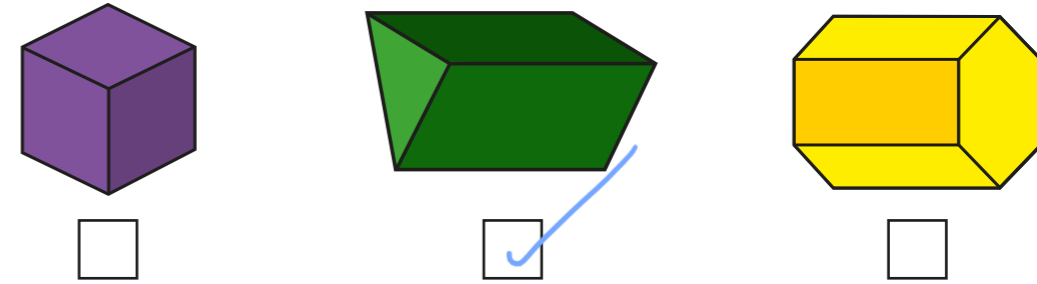
The odd one out is a sphere.

2 Tick the shape that could go in the group.

has a curved surface

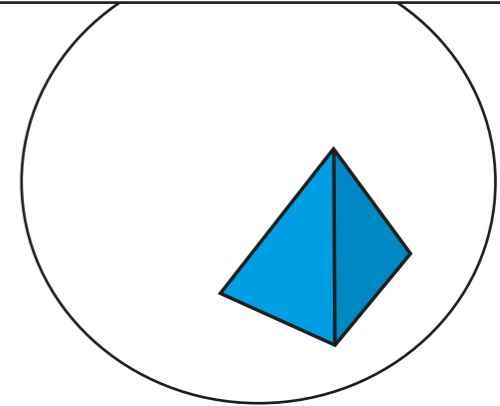
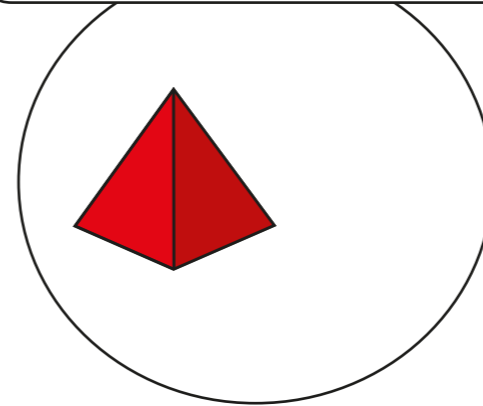


3 Tick the shape that could go in both groups.

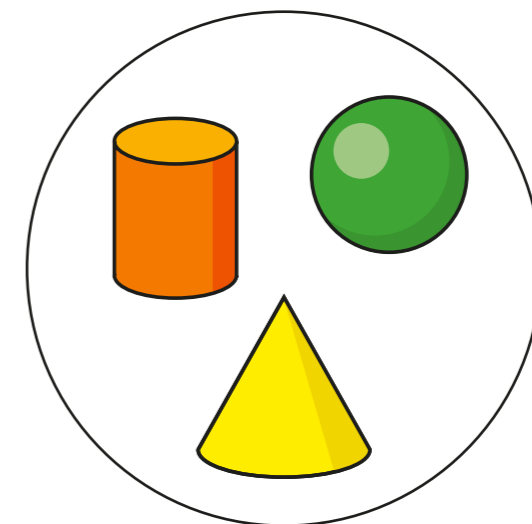


odd number of faces

even number of vertices

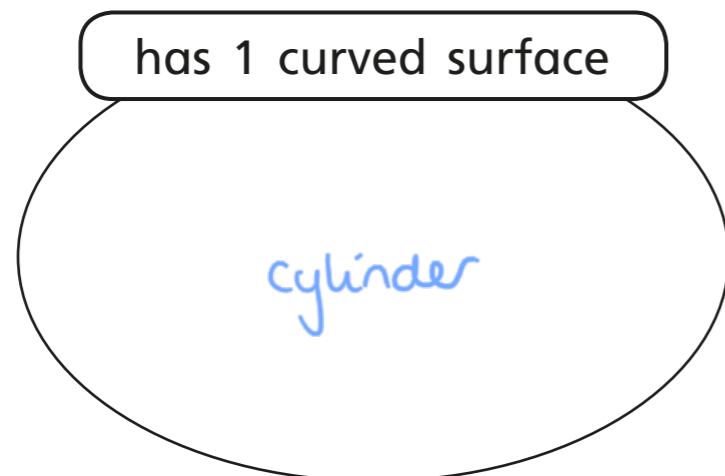
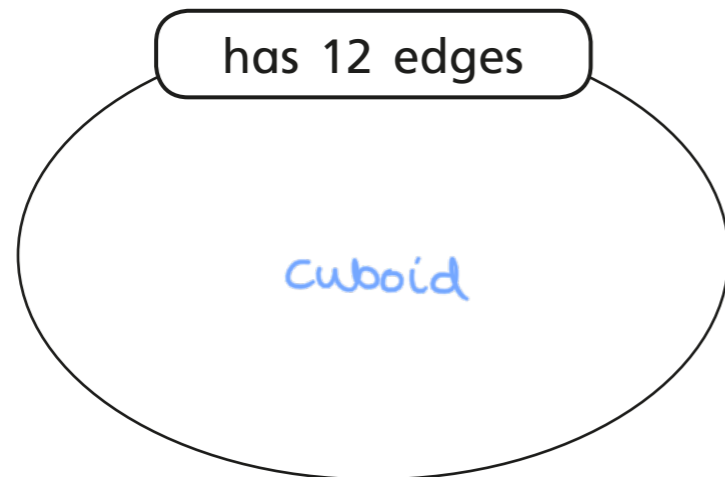
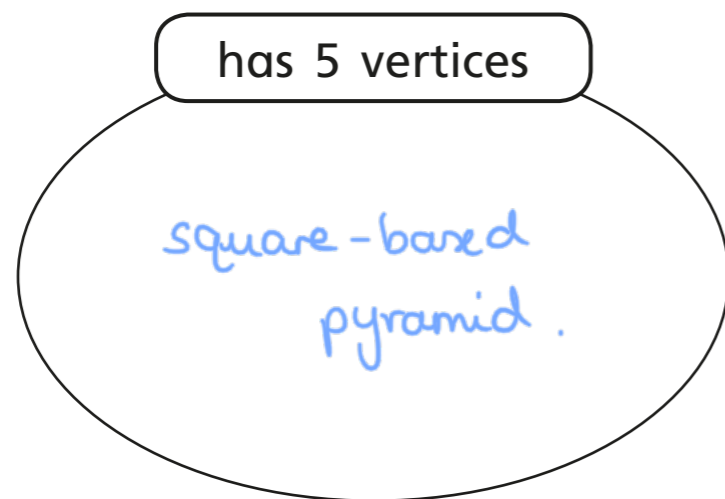


4 How have the shapes been grouped?



- 5 Write the name of a 3D shape that could go in each group.

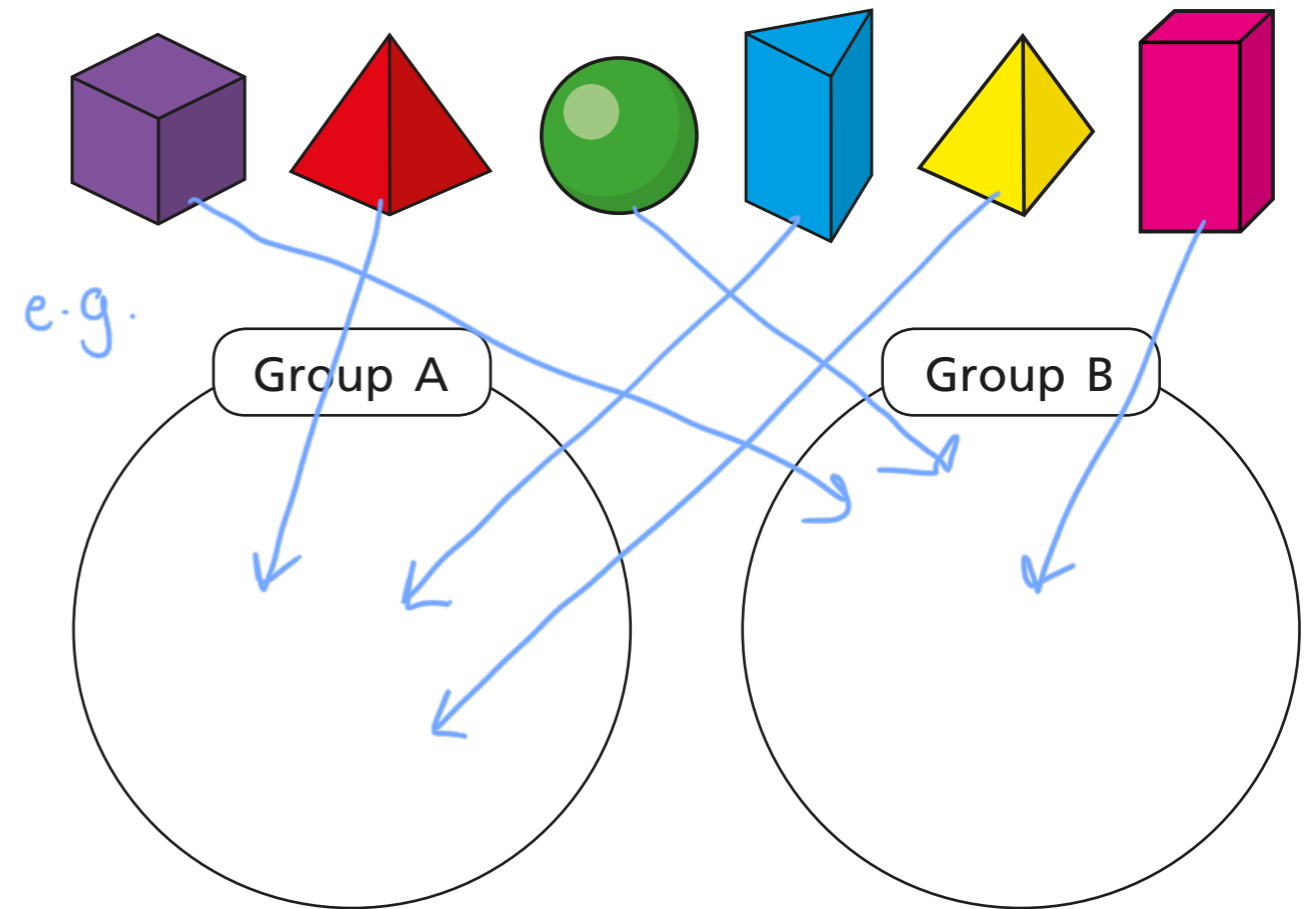
e.g.



Can you think of any other shapes to go in each group?



- 6 a) Draw lines to sort the shapes into two groups.



- b) Give each of your groups a label.

Group A: Has at least one triangular face

Group B: Has no triangular faces

Compare answers with a partner.

