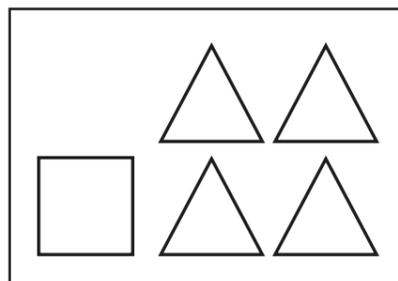
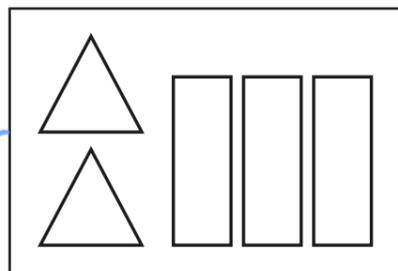
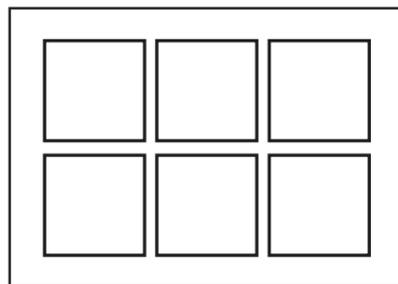
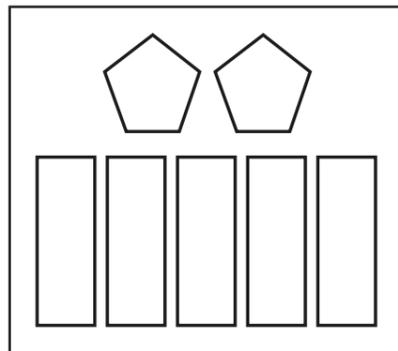
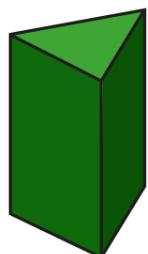
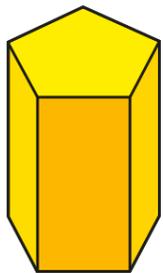
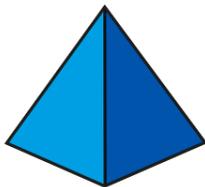
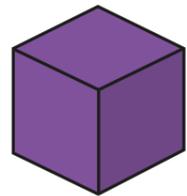


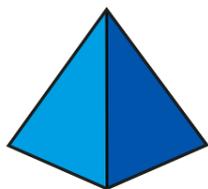
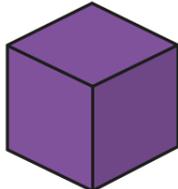
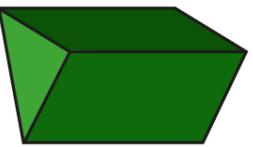
# Count faces on 3D shapes



1 Match the shapes to the faces.



2 Complete the table.

Shape	Name	Number of faces
	Cuboid	6
	pyramid	5
	Cube	6
	triangular prism	5

3



My shape has one curved surface.

What shape is Jack describing?

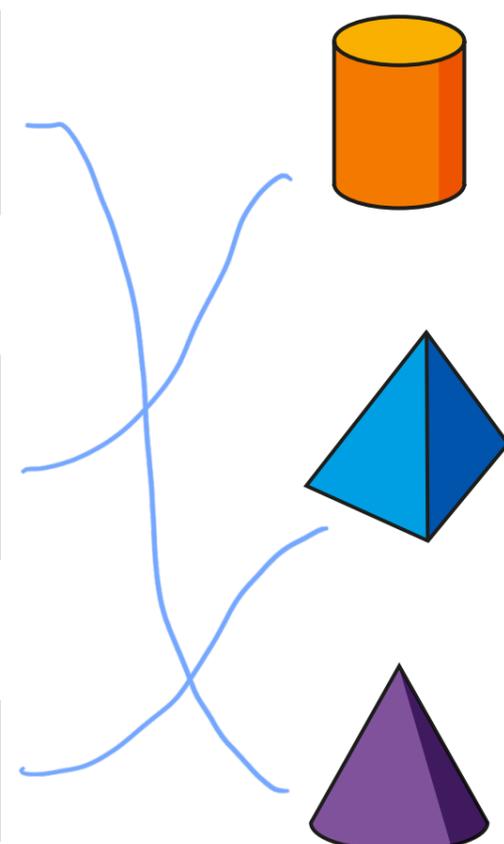
e.g. cylinder

4 Match the description to the shape.

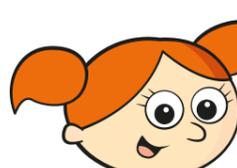
1 circular face and  
1 curved surface

2 circular faces and  
1 curved surface

4 triangular faces



5



A cube is the only 3D shape with 6 faces.

Alex has made a mistake.

Name another 3D shape that has 6 faces.

cuboid

6 Dexter has 5 of the same 3D shapes.



In total, my shapes have 10 circular faces.

What shapes has Dexter got?

Dexter has got 5 cylinders

7 Dora wants to put a sticker on each face of some cubes.

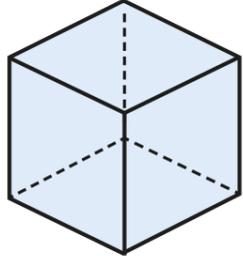
She has 60 stickers.

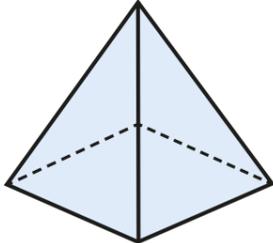
How many cubes can she cover in stickers?

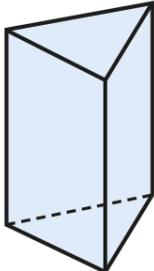
Dora can cover 10 cubes in stickers.

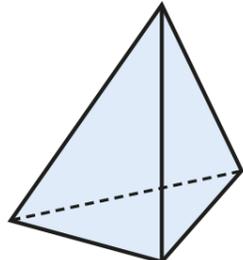
# Count edges on 3D shapes

1 How many edges does each shape have?

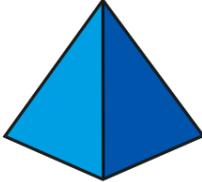
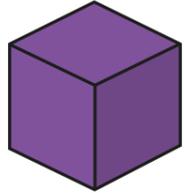
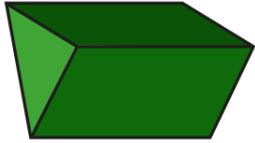
a)  12 edges

b)  8 edges

c)  9 edges

d)  6 edges

2 Complete the table.

Shape	Name	Number of edges	Number of faces
	cuboid	12	6
	pyramid	8	4
	cube	12	6
	triangular prism	9	5

3



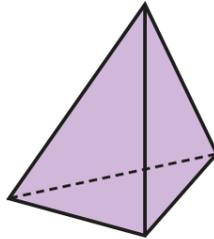
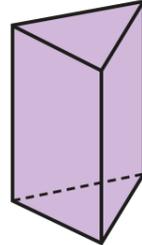
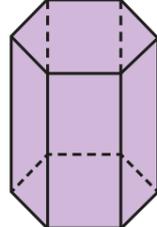
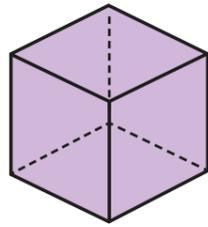
3D shapes always have more edges than faces.

Do you agree? NO

Why?



4 Use the clues to label the shape with the correct letter.



D

B

A

C

- Shape A has an odd number of edges.
- Shape B has the most edges.
- Shape C has the same number of edges as a cube has faces.
- The edges of shape D are all the same length.

5 Write the name of two 3D shapes that have the same number of edges.

e.g

cube

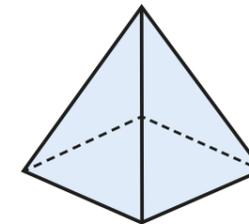
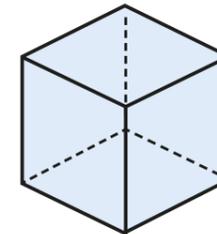
and

cuboid

6



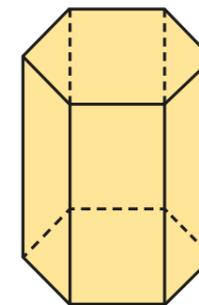
A cube has 6 faces and 12 edges, so a square-based pyramid must have 5 faces and 10 edges. The number of edges is always double the number of faces.



Do you agree with Teddy? No

Why?

7 This hexagonal prism has 18 edges.



How many edges do you think a pentagonal prism has?

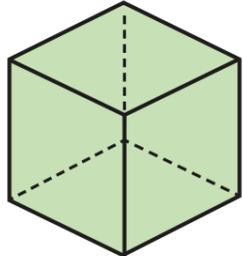
15

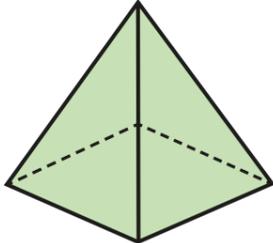
Why do you think this?

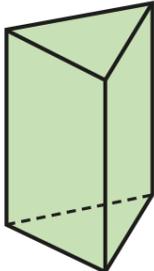


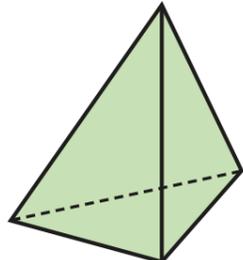
# Count vertices on 3D shapes

1 How many vertices does each shape have?

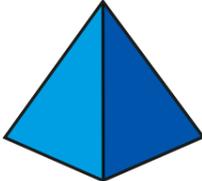
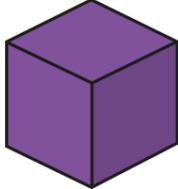
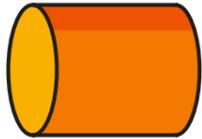
a)   vertices

b)   vertices

c)   vertices

d)   vertices

2 Complete the table.

Shape	Name	Number of vertices
	<i>cuboid</i>	<i>8</i>
	<i>pyramid</i>	<i>5</i>
	<i>cube</i>	<i>8</i>
	<i>cylinder</i>	<i>0</i>

Write the name of a different 3D shape with no vertices.

*sphere*

- 3 Write the shapes in order of the number of vertices.

Start with the shape that has the fewest vertices.

A B C D

fewest most

D C A B

- 4 Complete the sentences.

more

fewer

- a) A cube has more vertices than a sphere.
- b) A sphere has fewer vertices than a cone.
- c) A triangular prism has fewer vertices than a cuboid.

- 5 Match each shape to the correct label.

< 5 vertices

= 5 vertices

> 5 vertices