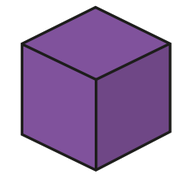
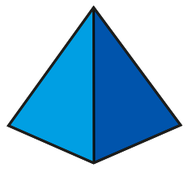
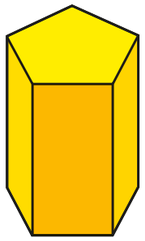
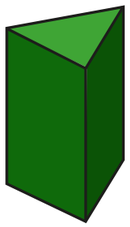
Count faces on 3D shapes

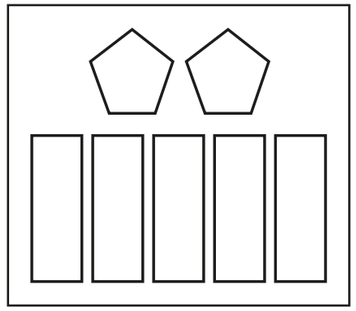
1 Match the shapes to the faces.

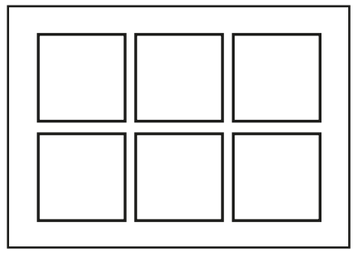


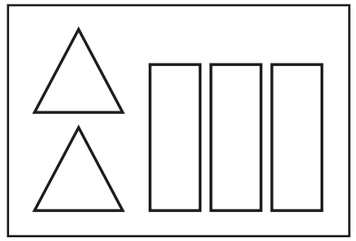


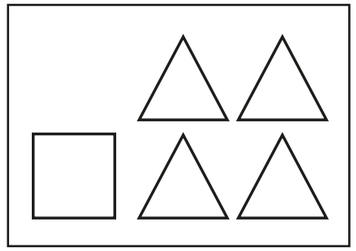




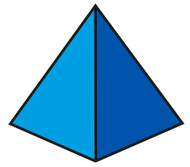
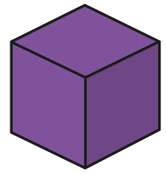
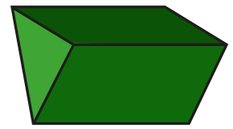




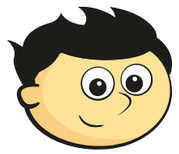




2 Complete the table.

Shape	Name	Number of faces
		
		
		
		

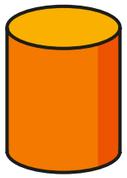
3



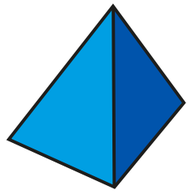
What shape is Jack describing? _____

4 Match the description to the shape.

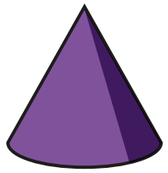
1 circular face and 1 curved surface



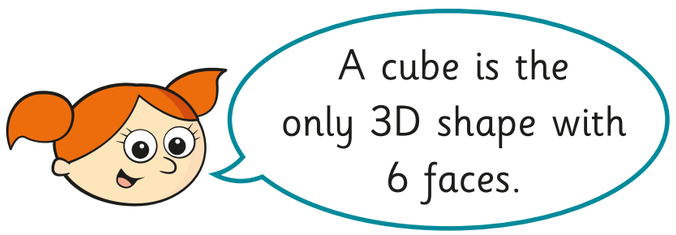
2 circular faces and 1 curved surface



4 triangular faces



5

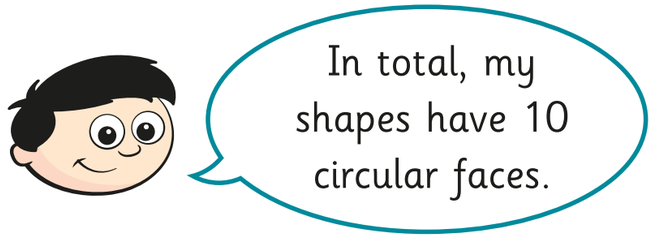


Alex has made a mistake.

Name another 3D shape that has 6 faces.

_____

6 Dexter has 5 of the same 3D shapes.



What shapes has Dexter got?

Dexter has got 5 _____

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

She has 60 stickers.

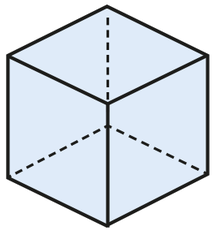
How many cubes can she cover in stickers?

Dora can cover ☐ cubes in stickers.

Count edges on 3D shapes

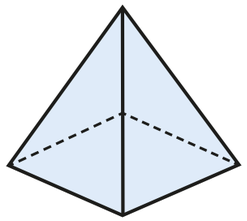
1 How many edges does each shape have?

a)



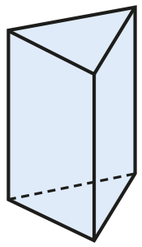
☐ edges

b)



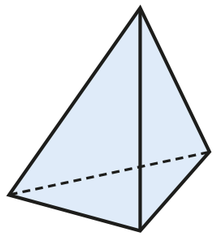
☐ edges

c)



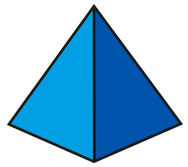
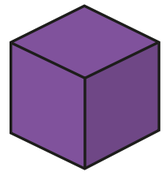
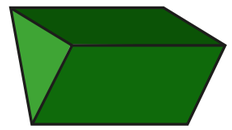
☐ edges

d)

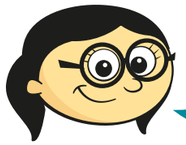


☐ edges

2 Complete the table.

Shape	Name	Number of edges	Number of faces
			
			
			
			

3

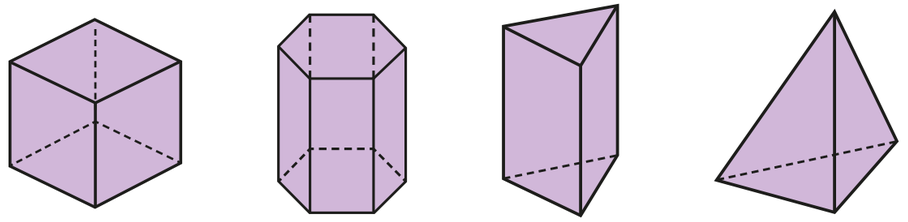


3D shapes always have more edges than faces.

Do you agree? _____

Why?

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



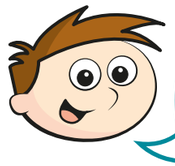
_____ _____ _____ _____

- 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.

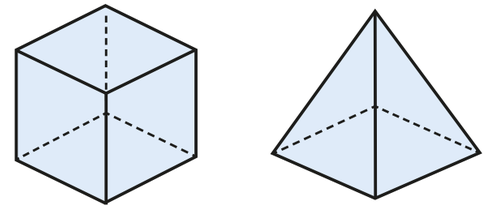
5 Write the name of two 3D shapes that have the same number of edges.

_____ and _____

6



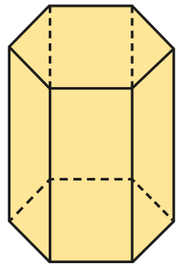
A cube has 6 faces and 12 edges, so a square-based pyramid must have 5 faces and 10 edges. The number of edges is always double the number of faces.



Do you agree with Teddy? _____

Why?

7 This hexagonal prism has 18 edges.



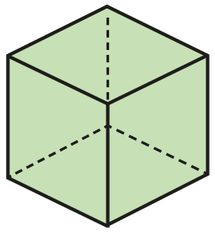
How many edges do you think a pentagonal prism has?

Why do you think this?

Count vertices on 3D shapes

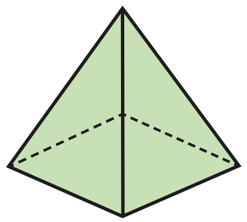
1 How many vertices does each shape have?

a)



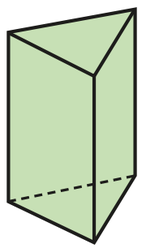
☐ vertices

b)



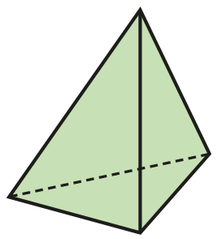
☐ vertices

c)



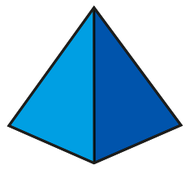
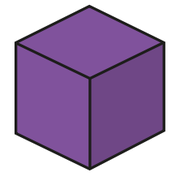
☐ vertices

d)



☐ vertices

2 Complete the table.

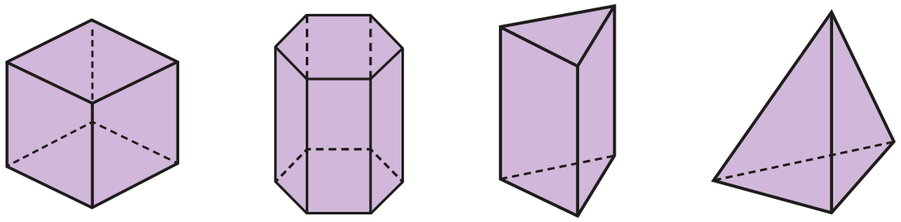
Shape	Name	Number of vertices
		
		
		
		

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

_____

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

_____ _____ _____ _____

4 Complete the sentences.

more fewer

a) A cube has _____ vertices than a sphere.

b) A sphere has _____ vertices than a cone.

c) A triangular prism has _____ vertices than a cuboid.

5 Match each shape to the correct label.

< 5 vertices

= 5 vertices

> 5 vertices