



Maths – Tuesday 2nd February

Retrieval practice:



Can you name a shape that only has one curved surface?

Can you name a shape with 6 square faces?

Which shapes have a triangular face?

Retrieval practice:



Can you name a shape that only has one curved surface?

Sphere

Can you name a shape with 6 square faces?

Cube

Which shapes have a triangular face?

Square based pyramid, triangular prism



WALT: Count edges on 3D shapes

2D shape properties:

- Sides
- Vertices

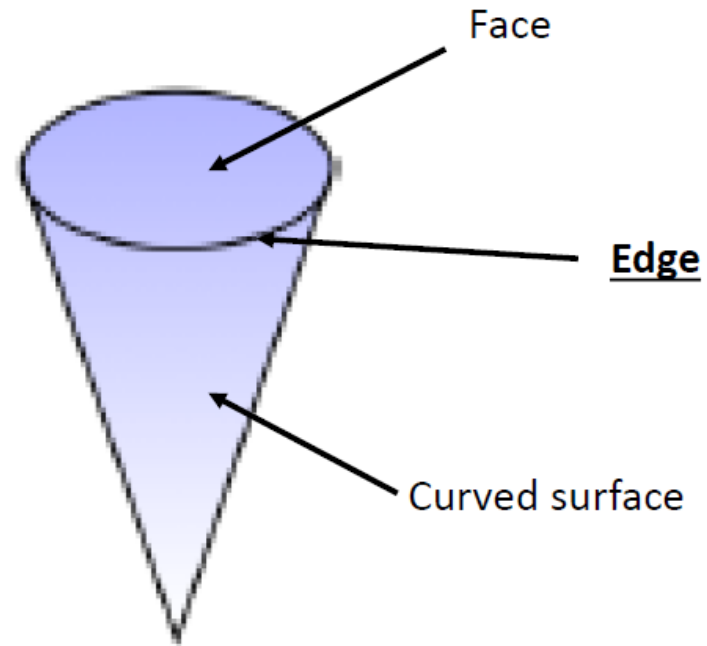
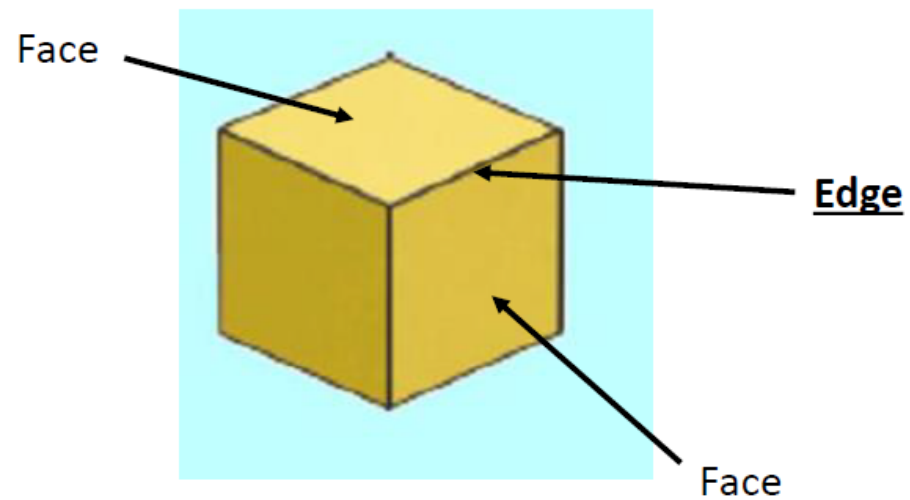
3D shape properties:

- Faces
- Edges
- Vertices



What is an edge?

- Edges are where 2 faces or curved surfaces meet.



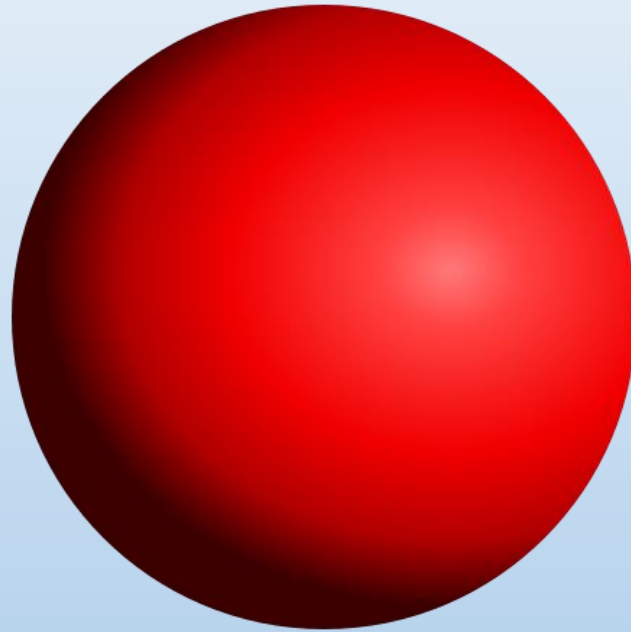
Can you think of shape with no edges?



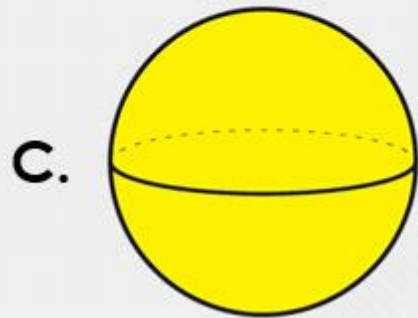
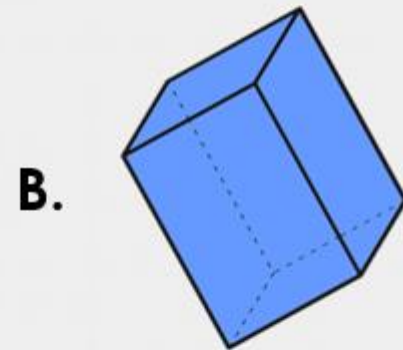
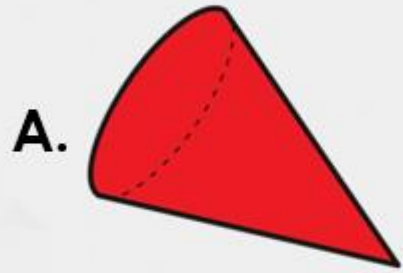
Can you think of shape with no edges?



- Sphere



Match the 3D shapes to the correct number of edges.



0 edges

6 edges

1 edge

12 edges

BOARD GAME
The answer is the best answer!


Ages 10yrs +
2-4 Players or Teams

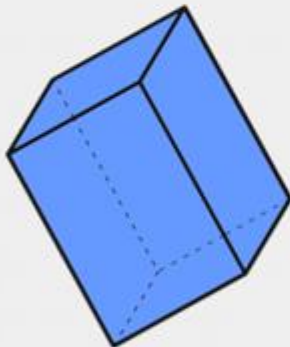
KNOWLEDGE QUIZ
FOR THE TESTING TRIVIA QUE
THE GENERAL KNOWLE
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HUMAN MIND

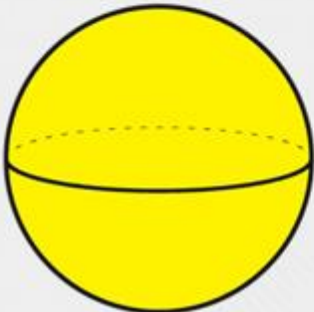
John De Soto



Match the 3D shapes to the correct number of edges.

A. 

B. 

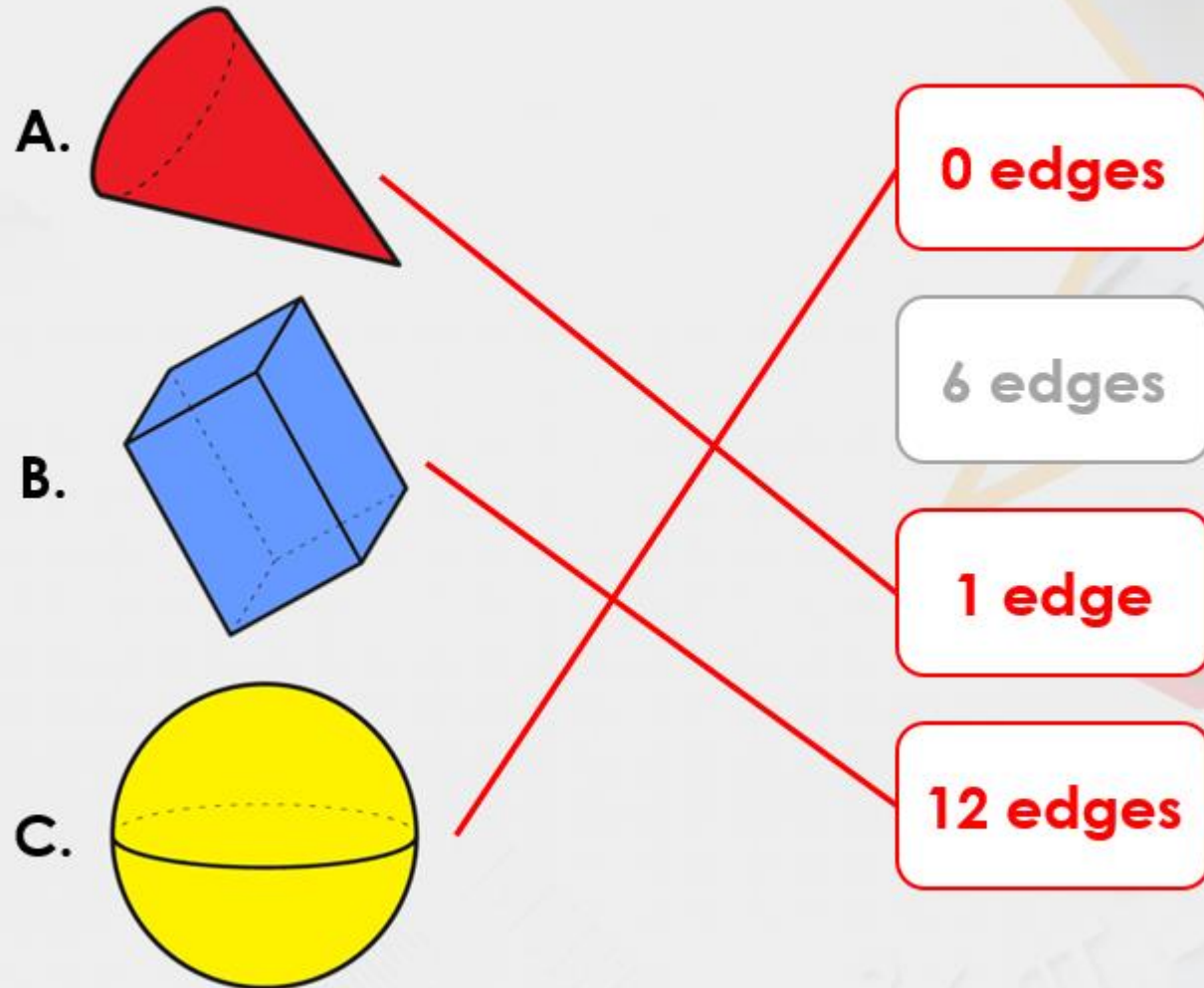
C. 

0 edges

6 edges

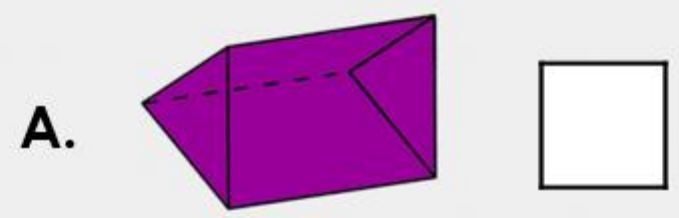
1 edge

12 edges



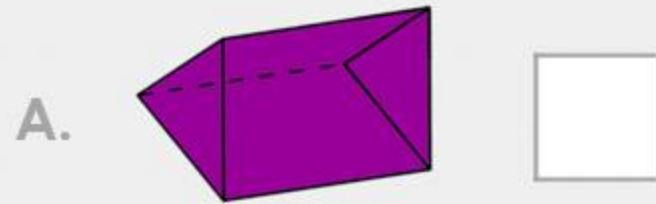


Tick the shape below that has 2 edges.





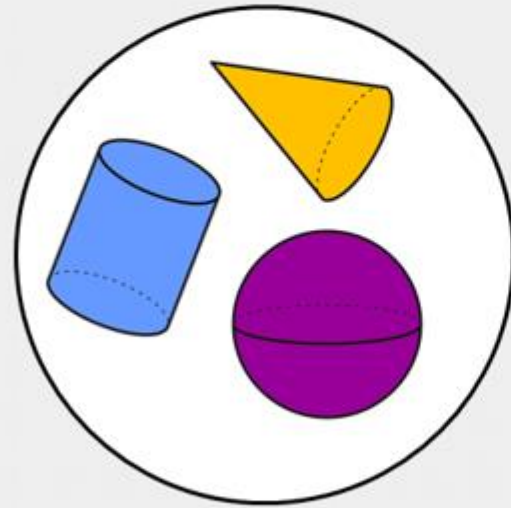
Tick the shape below that has 2 edges.



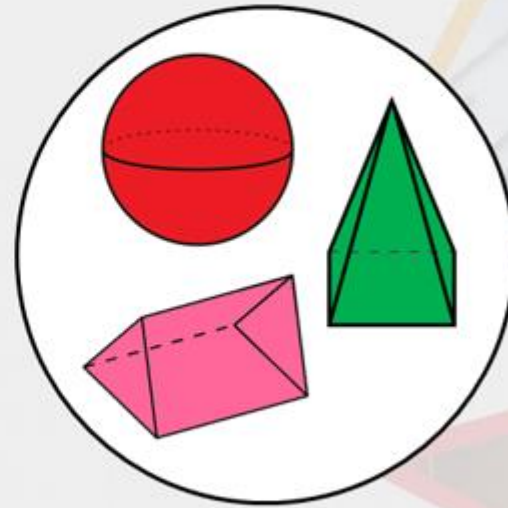


Ed has made a mistake when sorting 3D shapes.

Fewer than
3 edges



More than
3 edges

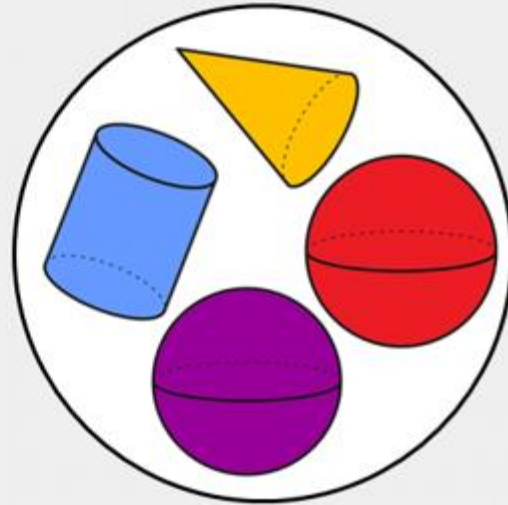


What has he done wrong?

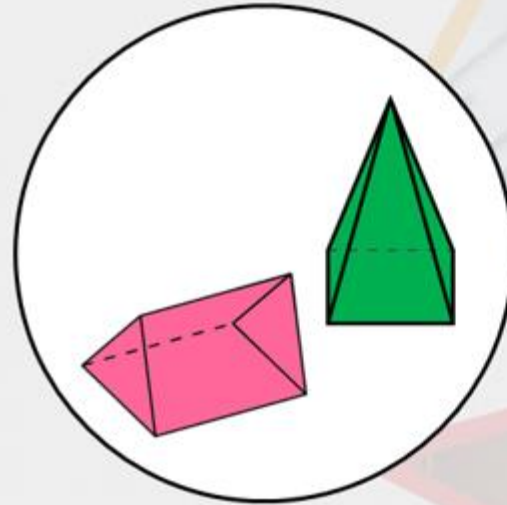
Ed has made a mistake when sorting 3D shapes.



Fewer than
3 edges



More than
3 edges



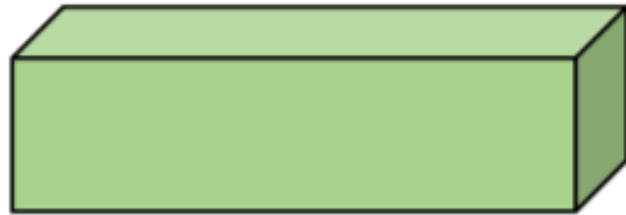
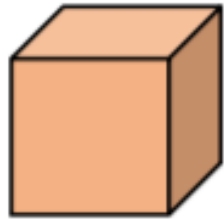
What has he done wrong?

Ed has put the sphere in the wrong group because a sphere has 0 edges which is fewer than 3. Both spheres should be in the same group.



One to discuss

Compare these 3-D shapes.

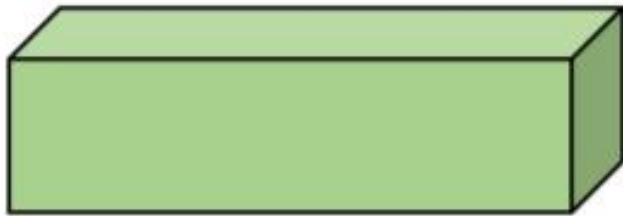
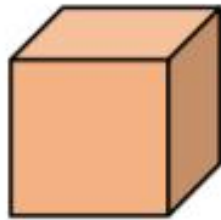


What is the same and what is different?



One to discuss

Compare these 3-D shapes.



What is the same and what is different?

Same - both have square faces, 6 faces, 12 edges, don't roll, can stack, no curved edges.

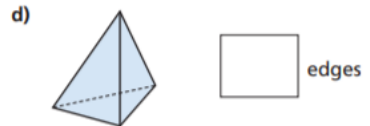
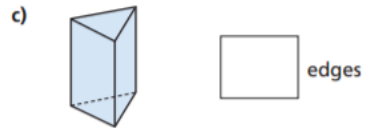
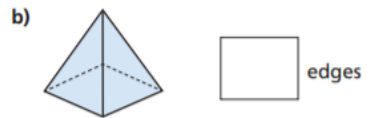
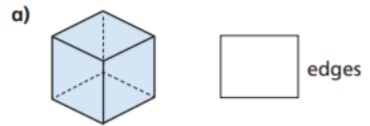
Different - name, colour, size, one only has square faces the other has squares and rectangles....







Your task today

Count edges on 3D shapes

1 How many edges does each shape have?



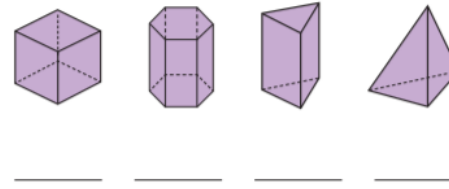
2 Complete the table.

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.

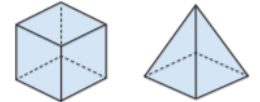


- Shape A has an odd number of edges.
- Shape B has the most edges.
- Shape C has the same number of edges as a cube has faces.
- The edges of shape D are all the same length.

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

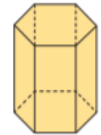
_____ and _____

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.



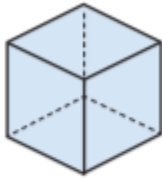
How many edges do you think a pentagonal prism has?

Why do you think this?

Count edges on 3D shapes

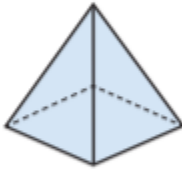
1 How many edges does each shape have?

a)



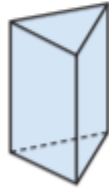
edges

b)



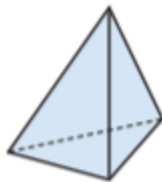
edges

c)



edges

d)







edges



2 Complete the table.



Shape	Name	Number of edges	Number of faces
			
			
			
			



3

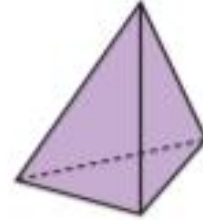
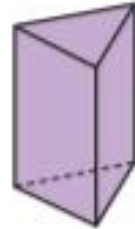
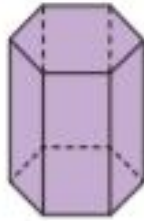
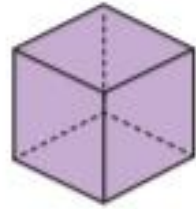


3D shapes always have more edges than faces.

Do you agree? _____

Why?

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



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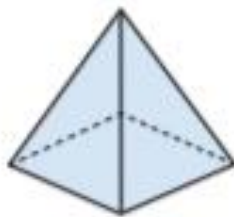
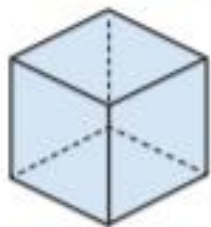
- 5 Write the name of two 3D shapes that have the same number of edges.

_____ 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.



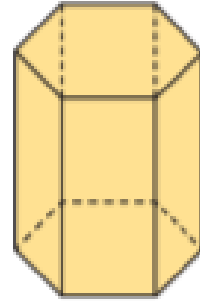
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Why?





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How many edges do you think a pentagonal prism has?

Why do you think this?