

Varied Fluency

Step 8: Count Faces on 3D Shapes

National Curriculum Objectives:

Mathematics Year 2: (2G2b) [Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces](#)

Mathematics Year 2: (2G3) [Identify 2-D shapes on the surface of 3-D shapes, \[for example, a circle on a cylinder and a triangle on a pyramid\]](#)

Differentiation:

Developing Questions to support counting the number of faces on 3D shapes. All shapes presented in the same orientation and size. Perspective lines visible on all shapes.

Expected Questions to support counting the number of faces on 3D shapes. All shapes presented in different orientations and sizes. Perspective lines visible on some shapes.

Greater Depth Questions to support counting the number of faces on 3D shapes. All shapes presented in different orientations and sizes. No perspective lines visible on shapes, with the use of some real-life objects.

More [Year 2 Properties of Shape](#) resources.

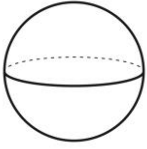
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Count Faces on 3D Shapes

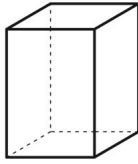
Count Faces on 3D Shapes

1a. Circle the shape with 6 faces.

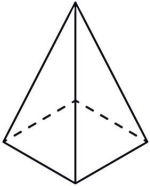
A.



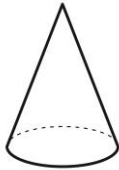
C.



B.



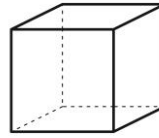
D.



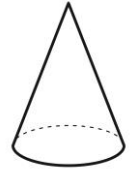
VF

1b. Circle the shape with 5 faces.

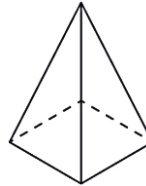
A.



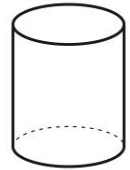
C.



B.

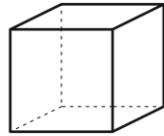
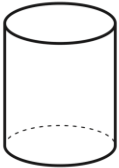


D.



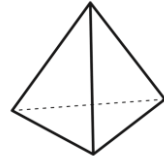
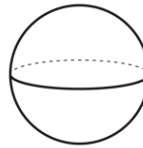
VF

2a. Tick the shape below that has a curved surface.



VF

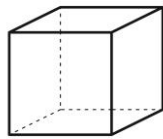
2b. Tick the shape below that has flat faces.



VF

3a. Complete the sentence below.

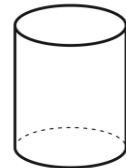
This shape has flat faces and curved surfaces.



VF

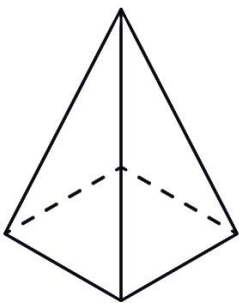
3b. Complete the sentence below.

The shape has flat faces and curved surfaces.



VF

4a. Which 2D shapes can you see on the flat faces of the 3D shape?



1



2

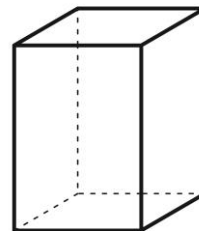


3



VF

4b. Which 2D shapes can you see on the flat faces of the 3D shape?



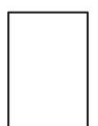
1



2



3

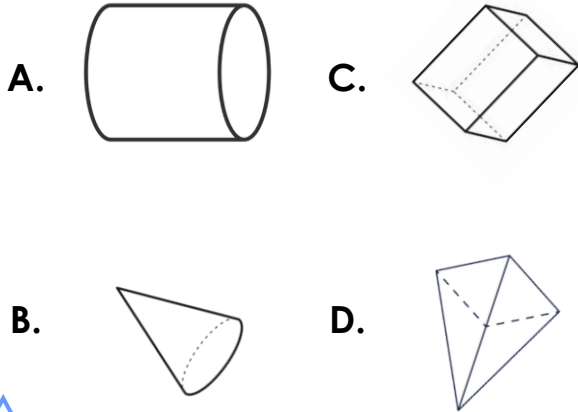


VF

Count Faces on 3D Shapes

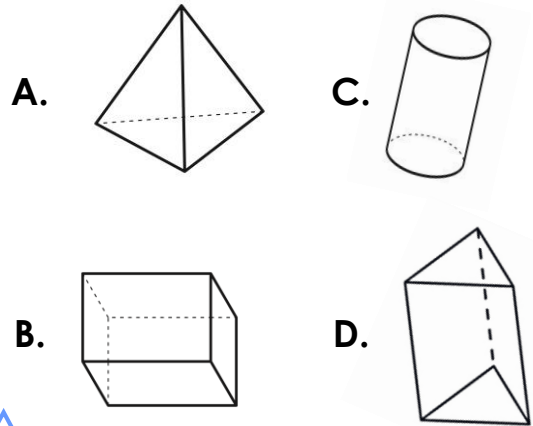
Count Faces on 3D Shapes

5a. Circle the shape with 5 faces.



VF

5b. Circle the shape with 2 faces.



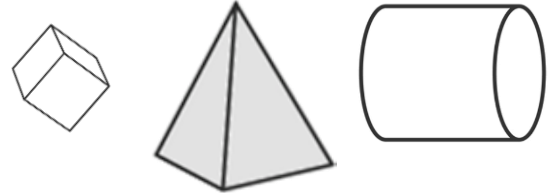
VF

6a. Tick the shape below that has 2 flat faces and 1 curved surface.



VF

6b. Tick the shape below that has 6 flat faces and 0 curved surfaces.



VF

7a. Complete the sentence below.

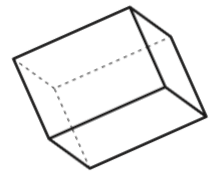
This shape has flat faces and curved surfaces.



VF

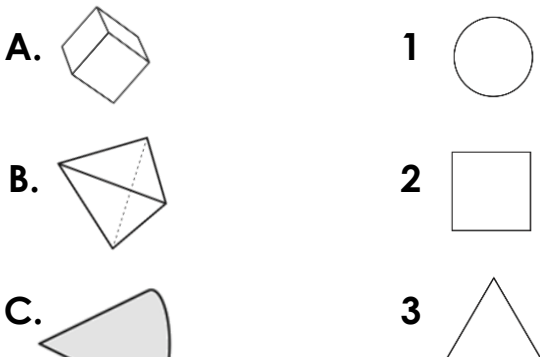
7b. Complete the sentence below.

This shape has flat faces and curved surfaces.



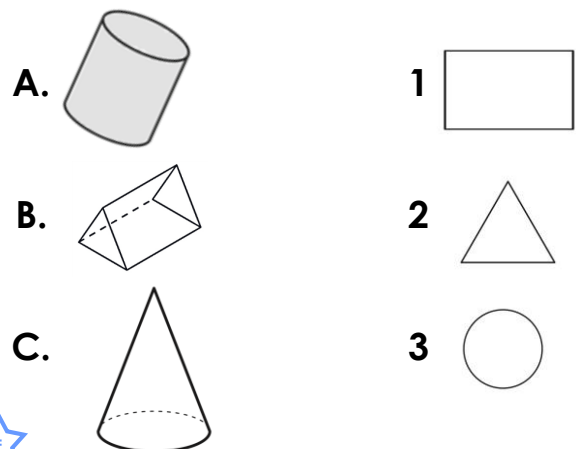
VF

8a. Which 2D shapes can you see on the flat faces of the 3D shapes?



VF

8a. Which 2D shapes can you see on the flat faces of the 3D shapes?



VF

Count Faces on 3D Shapes

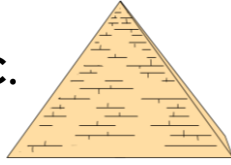
Count Faces on 3D Shapes

9a. Circle the shapes with 6 faces.

A.



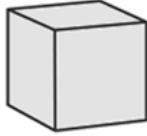
C.



B.



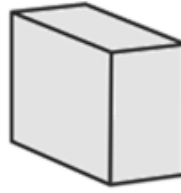
D.



VF

9a. Circle the shape with 5 faces.

A



B



C

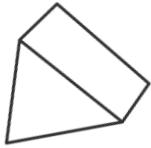


D



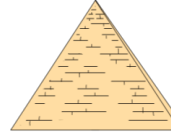
VF

10a. Tick the two shapes that combined have a total of 7 flat faces.



VF

10b. Tick the two shapes that combined have a total of 7 flat faces.



VF

11a. Complete the sentence below.

This shape has flat face and curved surface.



VF

11b. Complete the sentence below.

This shape has flat faces and curved surfaces.



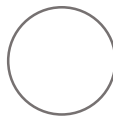
VF

12a. Which 2D shapes can you see on the flat faces of the 3D shapes?

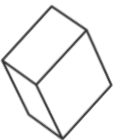
A.



1



B.



2



C.



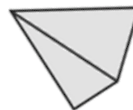
3



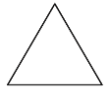
VF

12b. Which 2D shapes can you see on the flat faces of the 3D shapes?

A.



1



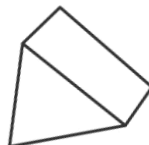
B.



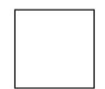
2



C.



3



VF

Varied Fluency Count Faces on 3D Shapes

Developing

- 1a. **C**
- 2a. **cylinder**
- 3a. **The shape has 6 flat faces and 0 curved surfaces.**
- 4a. **square and triangle**

Expected

- 5a. **D**
- 6a. **cylinder**
- 7a. **The shape has 5 flat faces and 0 curved surfaces.**
- 8a. **A = square; B = triangle; C = circle**

Greater Depth

- 9a. **A and D**
- 10a. **triangular prism and cylinder**
- 11a. **The shape has 1 flat face and 1 curved surface.**
- 12a. **A = triangle and rectangle; B = rectangle; C = circle**

Varied Fluency Count Faces on 3D Shapes

Developing

- 1b. **B**
- 2b. **triangular-based pyramid**
- 3b. **The shape has 2 flat faces and 1 curved surface.**
- 4b. **square and rectangle**

Expected

- 5b. **C**
- 6b. **cube**
- 7b. **The shape has 6 flat faces and 0 curved surfaces.**
- 8b. **A = circle; B = triangle and rectangles; C = circle**

Greater Depth

- 9b. **C**
- 10b. **cone and cuboid**
- 11b. **The shape has 6 flat faces and 0 curved surfaces.**
- 12b. **A = triangle or triangle and square; B = rectangle; C = rectangle and triangle**