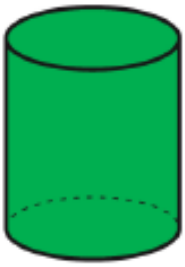
**5.5.20**

**LO. To be able to recognise and describe 3D shapes**

Mild

**1. Match the shapes to the correct descriptions.**

1 

2 

3 

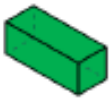
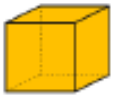
A
5 faces
8 edges
5 vertices

B
1 curved surface
1 circular base
1 edge
1 vertex

C
1 curved surface
2 faces
2 curved edges
0 vertices

VF
HW/Ext

**2. Complete the table.**

| | Number of faces/surfaces | Number of edges | Number of vertices |
|---|---|---|---|
| cuboid  | | | |
| sphere  | | | |
| cube  | | | |

VF
HW/Ext

**3. Cameron is thinking of a shape. Claire is trying to guess the shape.**

Cameron

My shape has 1 curved surface, no edges and no vertices.

It must be a cylinder.

Claire

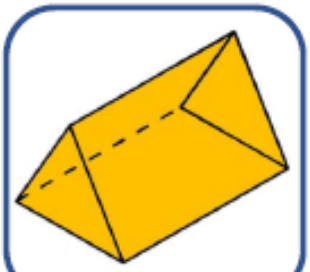
**Could Claire be correct? Explain your answer.**

RPS
HW/Ext

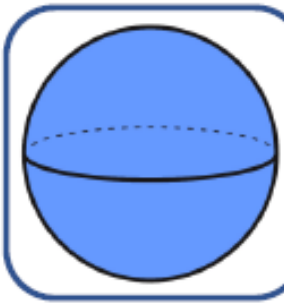
Hot

**4. Match the shapes to the correct descriptions.**

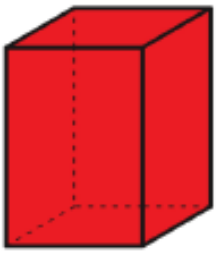
1



2



3



A

1 curved surface
0 edges
0 vertices

B

6 faces
12 edges
8 vertices

C

5 faces
9 edges
6 vertices

VF
HW/Ext

**5. Complete the table.**

| | Number of faces/surfaces | Number of edges | Number of vertices |
|---|---|---|---|
| triangular-based pyramid | | | |
| square-based pyramid | | | |
| cylinder | | | |

VF
HW/Ext

**6. Thali is thinking of a shape. Jane is trying to guess the shape.**

Thali

My shape has 6 faces, 12 edges and 8 vertices.

It must be a cuboid.

Jane

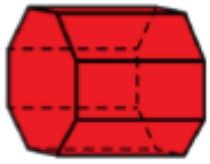
**Could Jane be correct? Explain your answer.**

RPS
HW/Ext

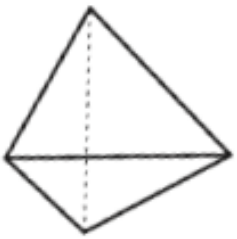
Spicy

**7. Match the shapes to the correct descriptions.**

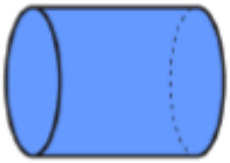
1



2



3



A

3 faces
2 edges
0 vertices

B

10 faces
24 edges
16 vertices

C

4 faces
6 edges
4 vertices

VF
HW/Ext

**8. Complete the table.**

| | Number of faces/surfaces | Number of edges | Number of vertices |
|---|---|---|---|
| pentagonal prism | | | |
| hexagonal prism | | | |
| octahedron | | | |

VF
HW/Ext

**9. Georgia is thinking of a shape. Andy is trying to guess the shape.**

Georgia

My shape has 4 faces, 4 vertices and 6 edges.

It must be a square-based pyramid.

Andy

**Could Jane be correct? Explain your answer.**

RPS
HW/Ext

Answers:

## Developing

1. 1B; 2C; 3A
2.

| | Number of faces/surfaces | Number of edges | Number of vertices |
|---|---|---|---|
| cuboid | 6 | 12 | 8 |
| sphere | 1 | 0 | 0 |
| cube | 6 | 12 | 8 |

3. Claire is incorrect as a cylinder has 2 curved edges. The shape Cameron is thinking of is a sphere.

## Expected

4. 1C; 2A; 3B
5.

| | Number of faces/surfaces | Number of edges | Number of vertices |
|---|---|---|---|
| triangular-based pyramid | 4 | 6 | 4 |
| square-based pyramid | 5 | 8 | 5 |
| cylinder | 3 | 2 | 0 |

6. Jane is correct but the shape could also be a cube. A cube also has 6 faces, 12 edges and 8 vertices.

## Greater Depth

7. 1B; 2C; 3A
8.

| | Number of faces/surfaces | Number of edges | Number of vertices |
|---|---|---|---|
| pentagonal prism | 7 | 15 | 10 |
| hexagonal prism | 8 | 18 | 12 |
| octahedron | 8 | 12 | 6 |

9. Andy is incorrect as a square-based pyramid has 5 faces, 5 vertices and 8 edges. The shape Georgia is thinking of is a triangular-based pyramid.