

Plans and elevations

- Drawing plans and elevations of 3-D shapes
- Identifying nets of cubes and cuboids

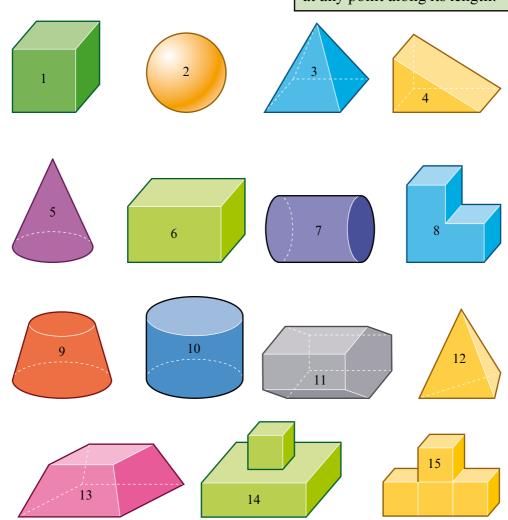
Keywords

You should know

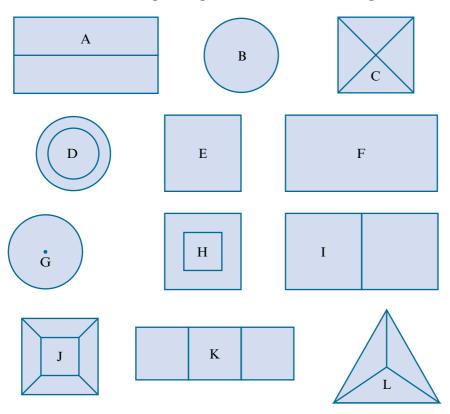
explanation 1

1 Which of these 3-D shapes are prisms?

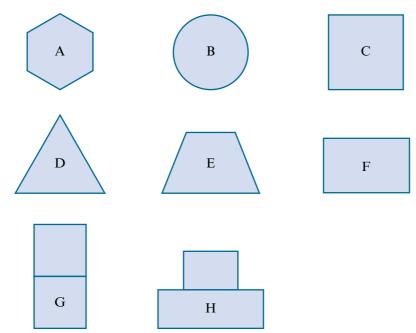
A prism has the same cross-section at any point along its length.



Which of the 3-D shapes in question **1** match to each plan below?



Which of the 3-D shapes for question **1** match to each side elevation below? Each elevation shows the shape as seen from the right.



- **4** Each diagram shows a 3-D shape made from cubes.
 - i Draw a plan of each shape.
 - ii Draw a side elevation of each shape, as seen from the left.

a



b





explanation 2a

explanation 2b

explanation 2c

Which of these are nets of a cube?

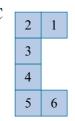
A

	1	
2	3	4
	5	
	6	

В

3	2	1
4		
5		
6		

 \mathbf{C}



D



E

5			
4	1	2	3
6			

F

1			
2	3	4	5
			6

G

	5		
1	2	3	4
		6	

- Look at your answers to part a. Imagine that each of those nets is folded to make a cube. For each net, which face would be opposite face 1 when folded?
- **6** There are 11 possible nets of a cube.
 - How many can you find? Draw them.
 - Which of the nets will tessellate?
- If shapes tessellate, they fit together like tiles to form a repeating pattern with no gaps.
- Draw a diagram to show how one of the nets tessellates.
- **7** Draw two nets for this cuboid.

