# Look Back

•How many 3D shapes are there on the shelf?

*There are:*

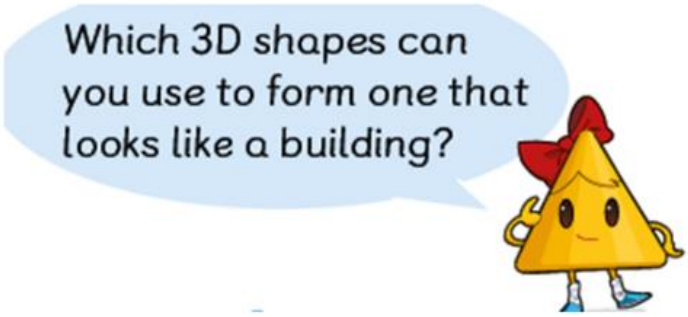
*3 cubes*

*5 cuboids*

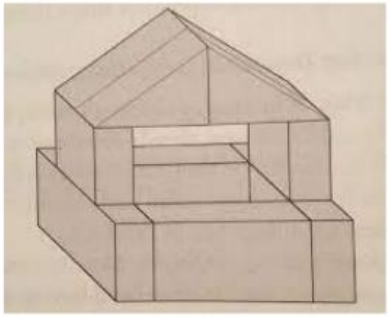
*2 cylinders*


How many faces and edges does each 3D shape have?

cube – 6 faces and 12 edges,
cuboid – 6 faces and 12 edges,
cylinder – 2 flat faces, 1 curved face and 2 edges.




*We can stack cubes, cuboids and cylinders on top of each other to form a building. We may place a cone right on top.*

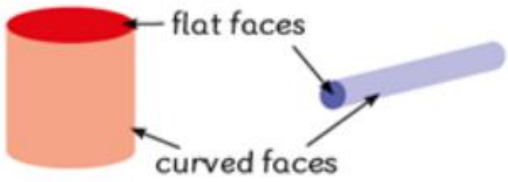


# Thinking Cap

Look at these 3D shapes above.
What is the same and what is different?
Find the same 3D shapes around you to help you.

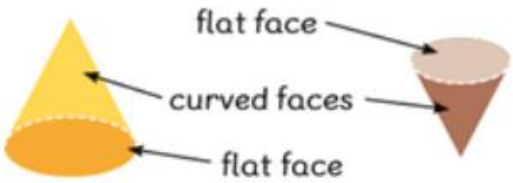
| same | different |
| --- | --- |
| *3D shapes have edges, faces and vertices.* | *The number of edges, faces and vertices in each 3D shape is different.* |

## (a) Cylinders and Cones




A **cylinder** has 2 flat faces and 1 curved face.

Its flat face is a circle.

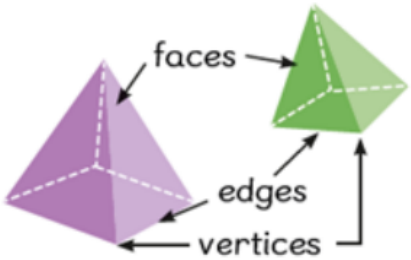


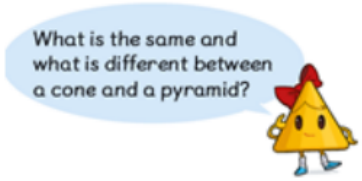

A **cone** has 1 flat face and 1 curved face.

Its flat face is a circle.

## (a) Pyramids

A pyramid has a base and triangular faces.
The base can be any polygon.

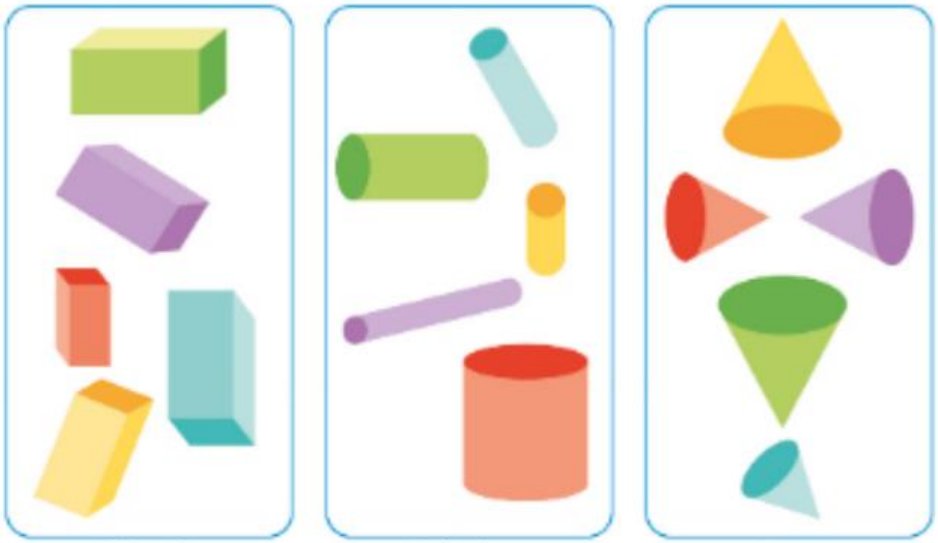



This purple pyramid and the green pyramid each has 5 faces, 5 vertices and 8 edges.

| | cone / pyramid |
|---|---|
| same | *They both have a base.* |
| different | *A cone has 2 faces, 1 edge and 1 vertex. A square-based pyramid has 5 faces, 8 edges and 5 vertices* |

**b** Rajah sorts the shapes into groups.



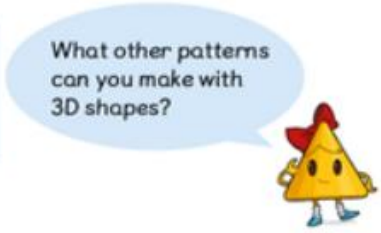
Cuboids | Cylinders | Cones

He sorts the shapes by number of faces, edges and vertices.

## (c) Make Patterns with 3D Shapes

Alice makes a pattern using different 3D shapes.
Get a sticker from page 249 of the Student's Book to complete the pattern.

The pattern repeats this way:
cuboid, cylinder, cone, cube,
cuboid, cylinder, cone, cube, ...




The missing 3D shape is a cube.



### Let's Practise

1 Fill in each blank.

a



3 faces
2 edges
0 vertices

b

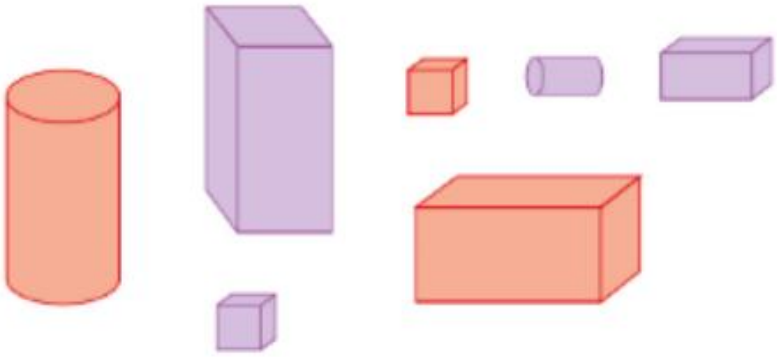
6 faces
12 edges
8 vertices

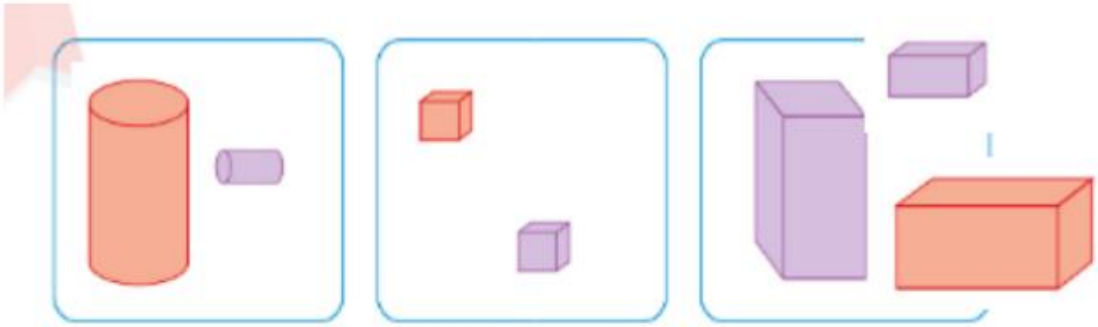
2


What shape is Caz thinking of? cube or cuboid

What 2D shapes does this shape have? cube: squares
cuboid: rectangles and squares.

3 Get 3D shapes stickers from page 249.
Sort the 3D shapes into groups on the next page.





How do you sort them? by shape

Explain to your partner.

4 Ralph uses the 3D shapes to make a pattern.

Use the same shapes to form another pattern.

Use the stickers on page 250 to help you.

any pattern that you can make is acceptable

Compare your pattern with your partner.

What is the same and what is different?