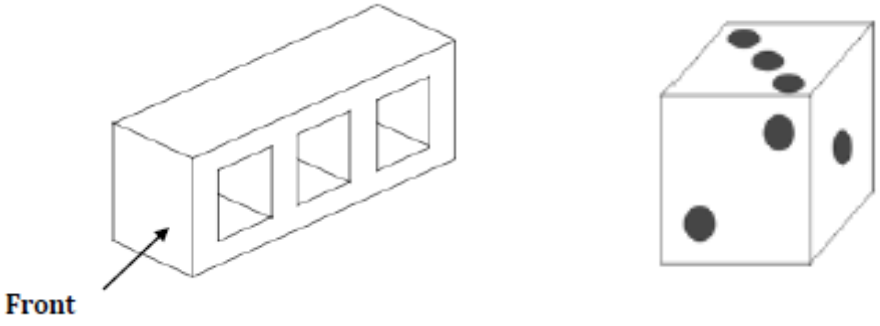
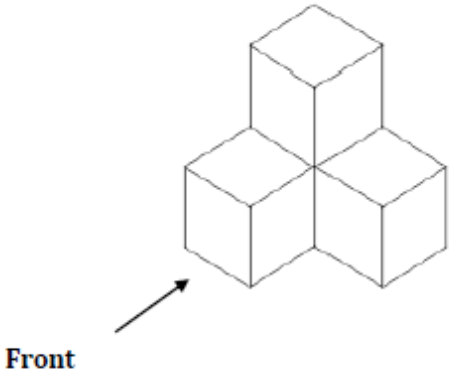
Year 8 Summer 1 Unit 3—3D Shapes

What you will learn

- The difference between prisms and pyramids
- The link among faces, vertices and edges of a 3D shape
- Recognise nets of 3D shapes
- Identify plans and elevations of simple 3D shapes.

Draw the plan view, front elevation and side elevation for each of the shapes below.





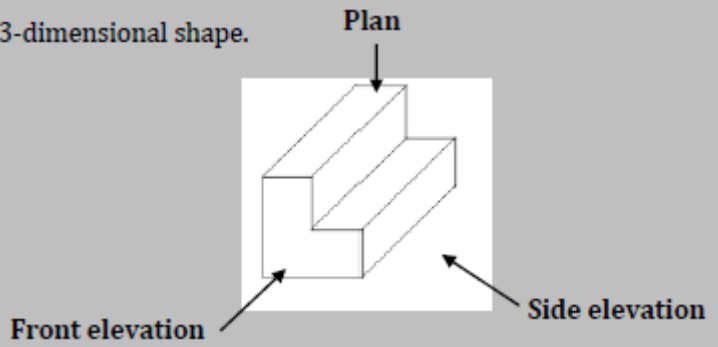
Concept corner

When an architect designs a building they have to draw diagrams to show what the building will look like from different directions.

These diagrams are called **plans and elevations**. The view from the top is called the **plan**. The views from the front and sides are called the **elevations**.

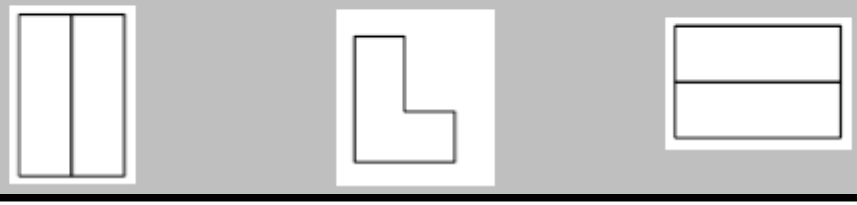
Example

The diagram shows a 3-dimensional shape.



Draw the plan view, front elevation and side elevation.

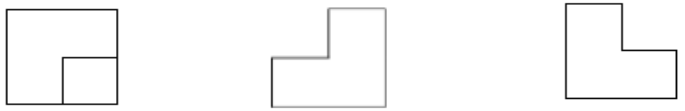
Plan view **Front elevation** **Side elevation**



The plan and elevations of a shape are shown below.

Sketch the 3-dimensional shape.

Plan view Front elevation Side elevation



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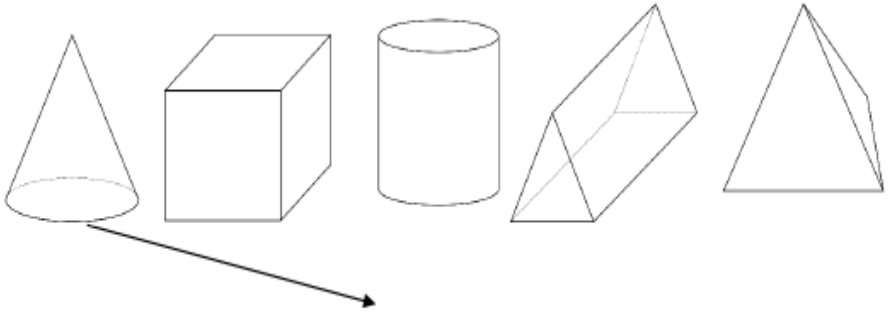
a) Match the 3-dimensional shapes their names.

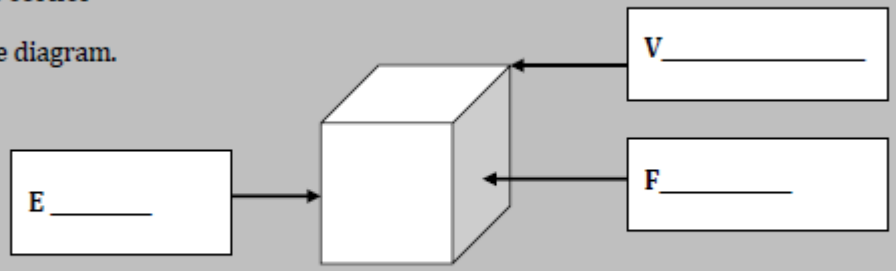


Cube Pyramid Cone Cylinder Triangular prism

11.2: Identify faces, vertices and edges and properties of 3D shapes

Concept corner

Label the diagram.



Concept corner

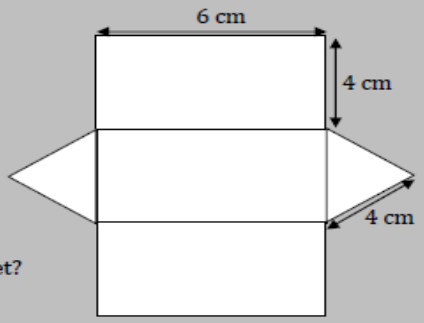
A net can be used to make a solid shape.

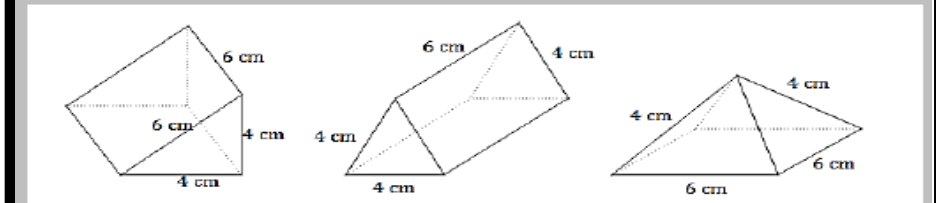
The prism is 6 cm long.

The ends are equilateral triangles

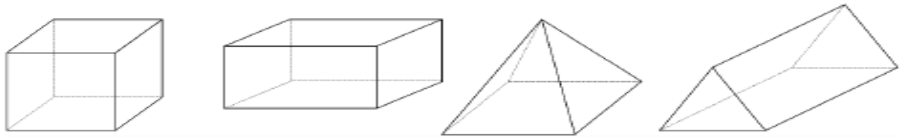
with sides 4 cm.

Which of the shapes below represent this net?





The dotted lines are used to show the edges which cannot be seen when you look at the shape from one side.



Look at these diagrams to help you complete the table below.

Name of shape	Number of faces	Number of vertices	Number of edges

Answers to questions

Mathematics Mastery