

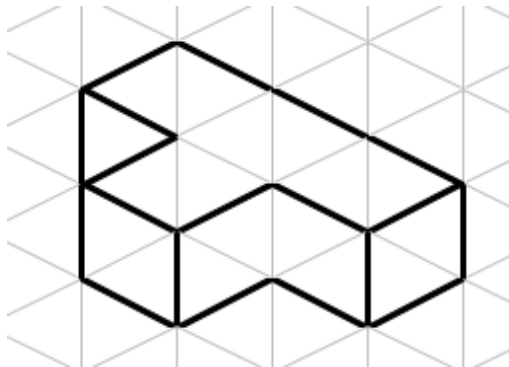
Plans and Elevations

Starter

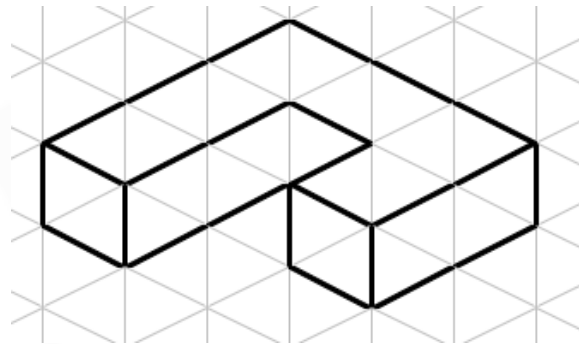
Work in pairs.

1. Use the multilink cubes on your desk to build these 3-D solids.

(a)



(b)



2. How many 2-dimensional diagrams do we need to define them? Draw all the diagrams that you think you need.

Notes

We use **three** 2-dimensional diagrams to define a 3-dimensional shape

1. **Front elevation** — the view standing in front of the solid
2. **Plan view** — the view from the above the solid (i.e. the bird's eye view)
3. **Side elevation** — the view from a side. It is a good idea to state whether it is left or right side elevation.

Visible vs. hidden edges

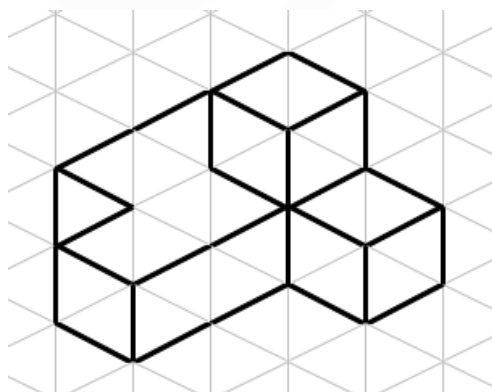
- **Visible edges** (i.e. edges that can be seen) — **solid line**
- **Hidden edges** (i.e. edges that cannot be seen) — **dotted line**

Hint: Always draw the outline of the shape first and then fill in the visible and hidden edges inside the outline last.

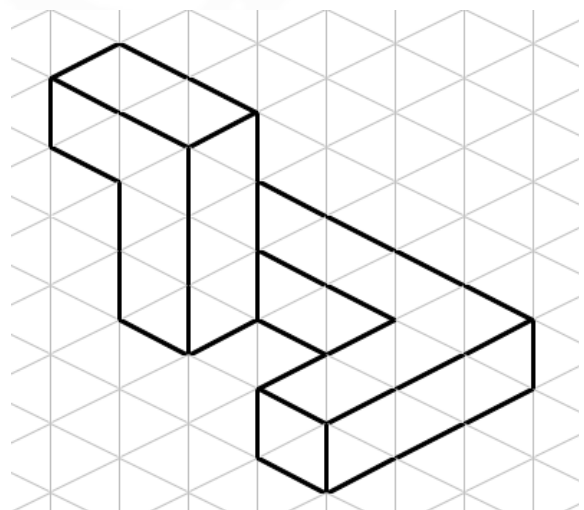
E.g. 1 Draw the three plans and elevations needed to define these 3-D solids.

Hint: Use your multilink cubes to build the solid before attempting to draw the diagrams.

(a)



(b)



Exercise

p103 Ex 6.3 Qu 1-10

Summary

We use three 2-dimensional diagrams to define a 3-dimensional shape:

1. **Front elevation** — the view standing in front of the solid
2. **Plan view** — the view from the above the solid (i.e. the bird's eye view)
3. **Side elevation** — the view from a side. It is a good idea to state whether it is left or right side elevation.

Visible edges — solid line

Hidden edges — dotted line

Always draw the outline of the shape first and then fill in the visible and hidden edges.

[Textbook answers \(only available during a lockdown\)](#)