

Name: _____ Maths Group: _____ Tutor Set: _____

Homework Booklet

KS3 Levels 3-8

Unit 9 – 2d and 3d Visualising

Remember to use the back of a page if you need more working out space.

Complete this table indicating the homework you have been set and when it is due by.

Date	Homework	Due By	Handed In

Please take care of the booklet as you will be required to make a donation to replace it if lost or damaged beyond use.

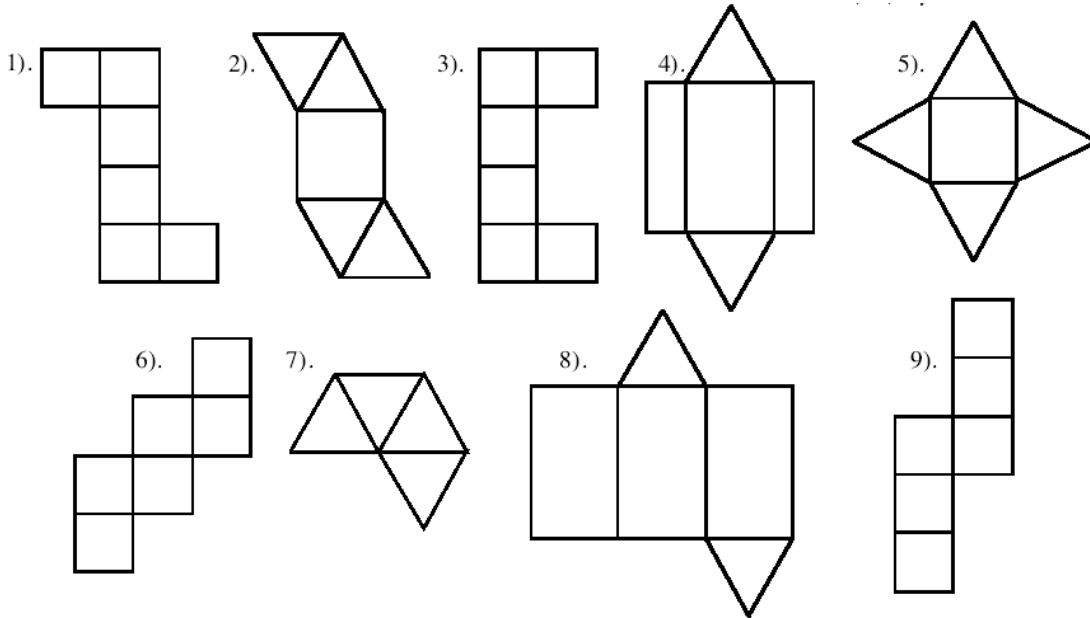
U9 – Coordinates and 2D/3D Visualising

Nets

No Calculator Allowed

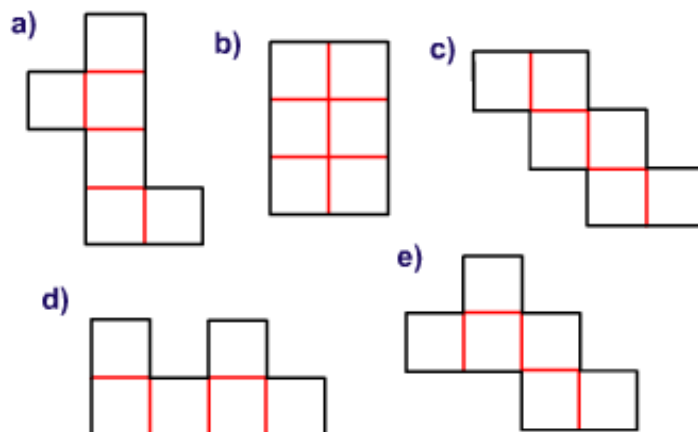
Section A

What 3D solid will each of these nets make?



Section B

Which of these nets will successfully make a cube?

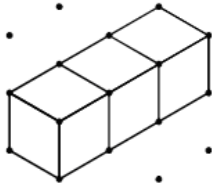


U9 – Coordinates and 2d/3d Visualising

Isometric Drawings

No Calculator Allowed

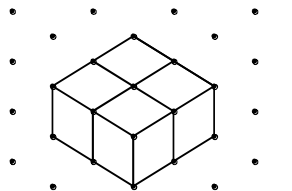
1) I join three cubes in a line to make this shape.



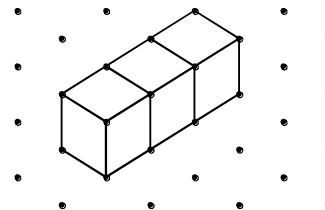
Then I join one more cube to make an L-shape.
Draw the new shape on the paper provided.

2)

a) This cuboid is made from 4 small cubes.
On the isometric paper on the next page draw
a cuboid that is twice as high,
twice as long and twice as wide.



b) Graham made this cuboid from 3 small cubes.
Mohinder wants to make a cuboid which is twice
as high, twice as long and twice as wide as Graham's
cuboid. How many small cubes will Mohinder need
altogether?

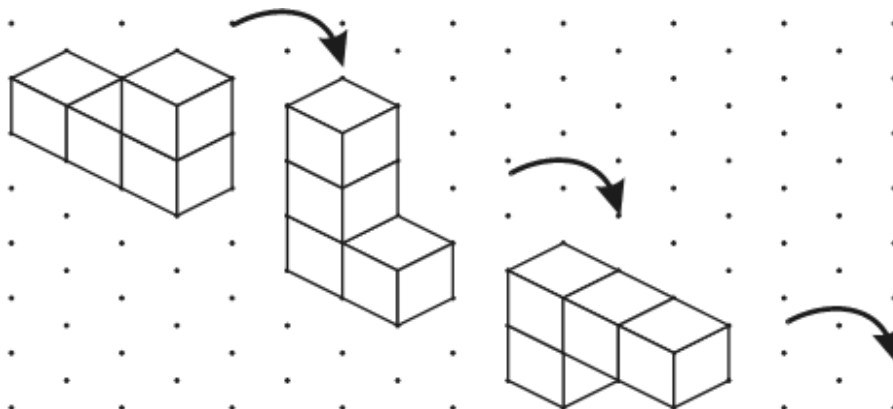


3)

Four cubes join to make an L-shape.

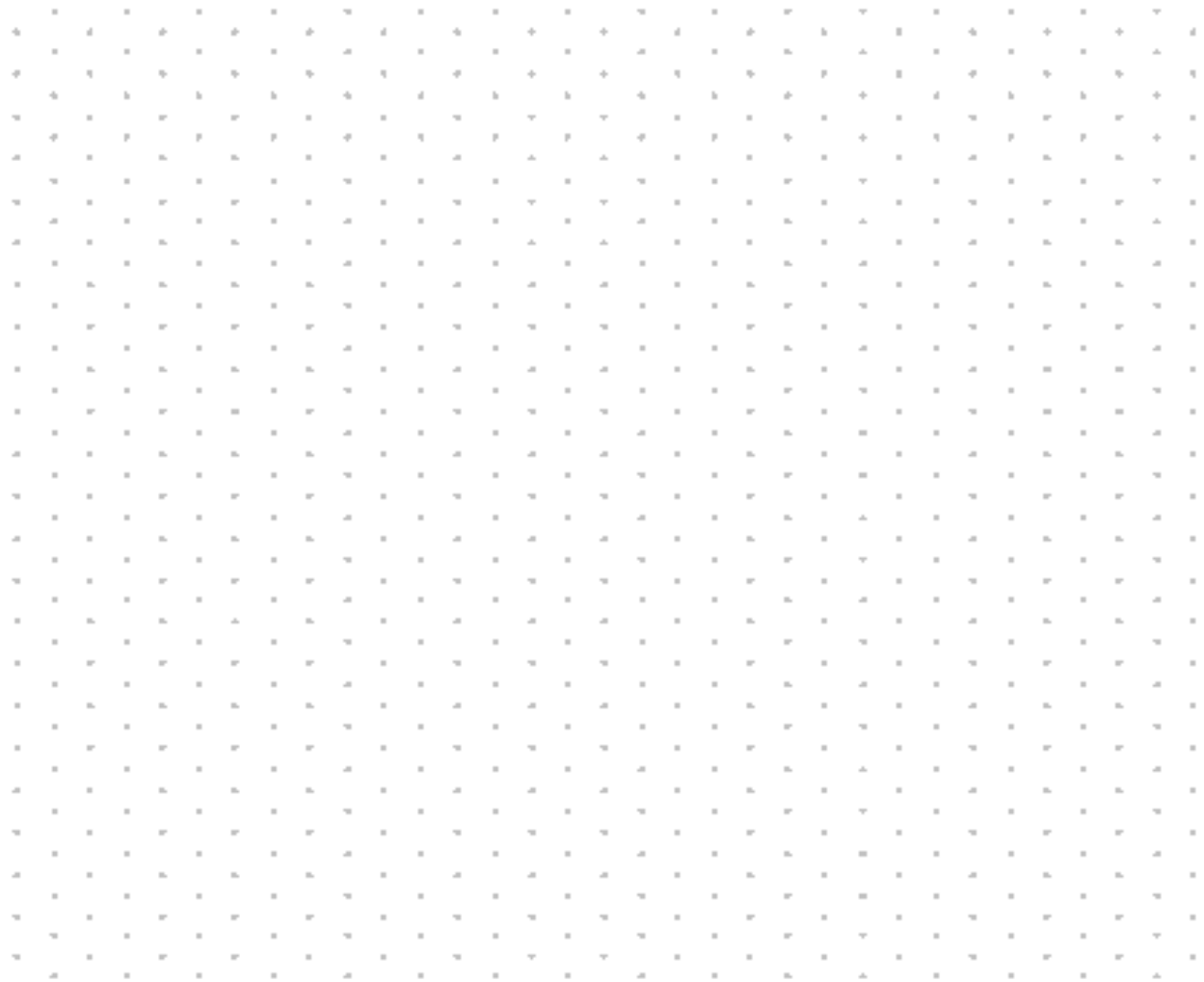
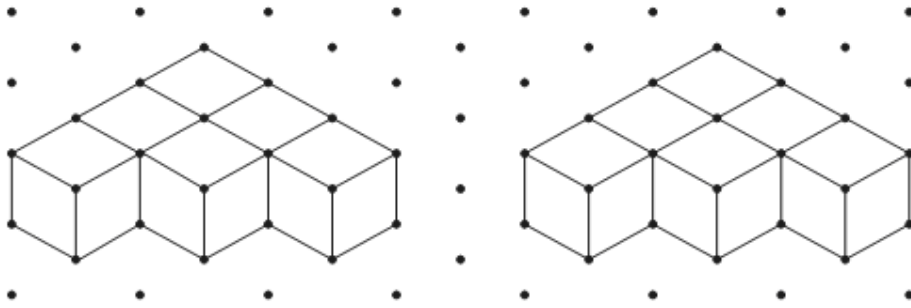
The diagram shows the L-shape after quarter turns in one direction.

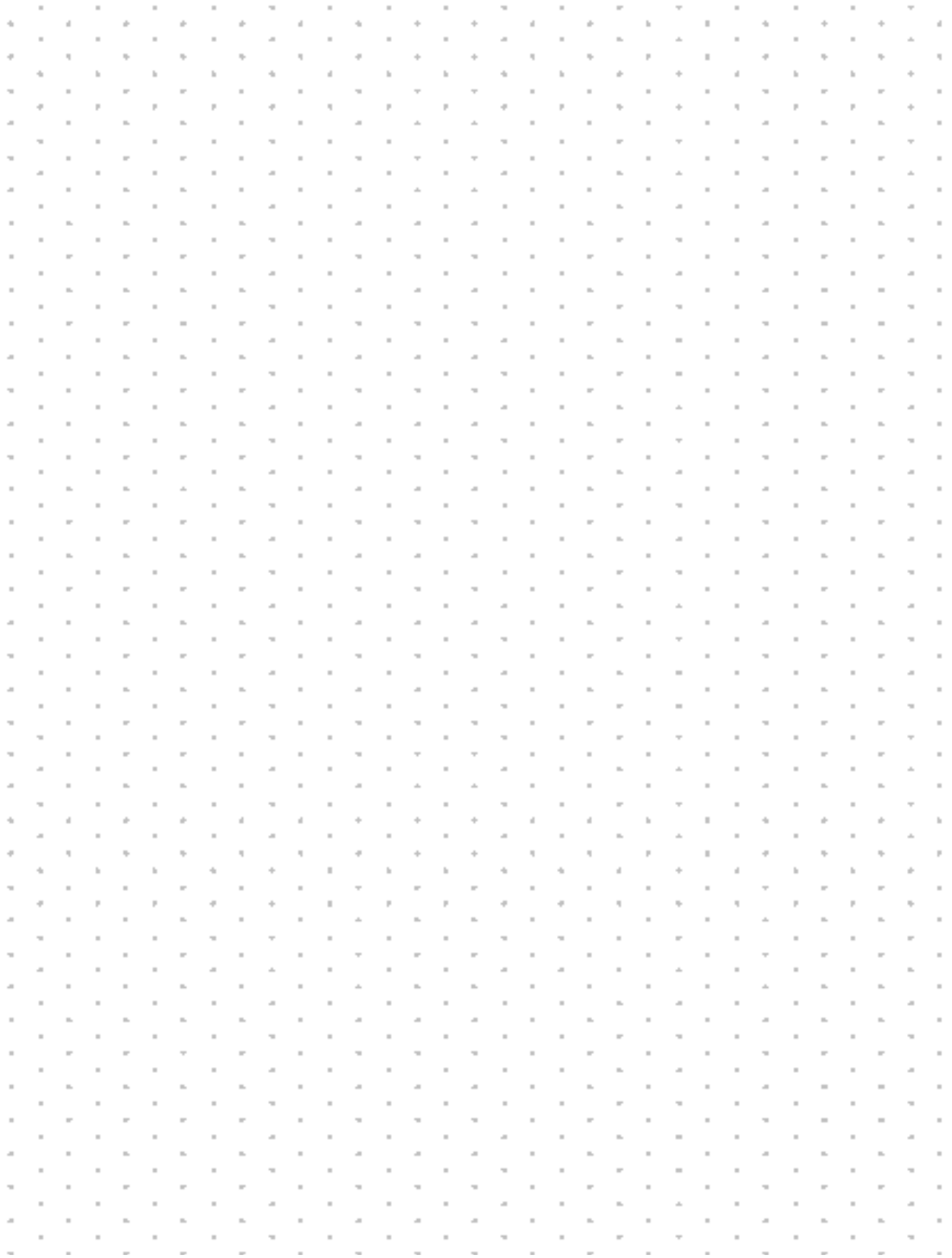
On the isometric paper on the next page, draw the L-shape after the next quarter turn in the same direction



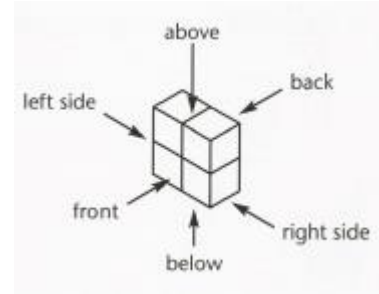
4)

I join six cubes face to face to make each 3-D shape below. I can then join the 3-D shapes to make a cuboid. Draw this cuboid on isometric paper on the next page.





U9 – Coordinates and 2d/3d Visualising
Plans and Elevations
No Calculator Allowed



Draw the stated views of these shapes

(a)

front	right side	back	left side	above	below

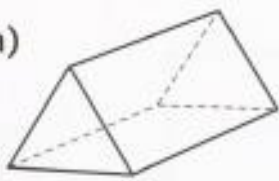

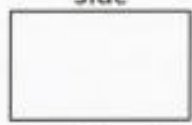
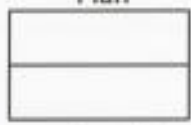
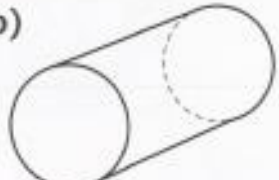


(b)

front	right side	back	left side	above	below


(c)

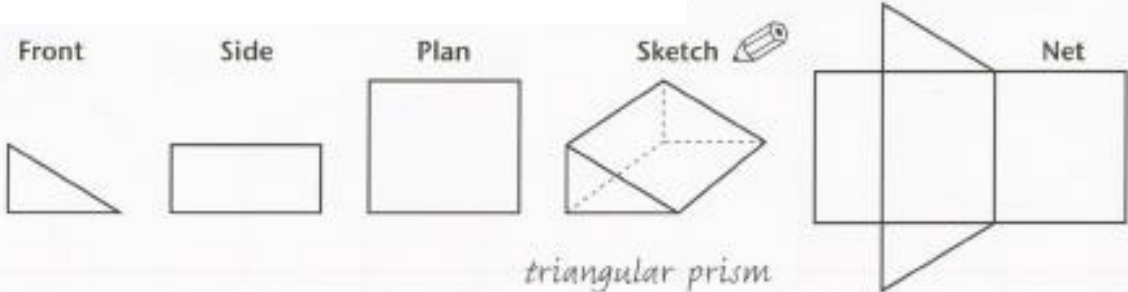
front	right side	back	left side	above	below

For each shape **sketch and name** the front and side elevations and the plan.
The first one has been done for you.


<p>(a)</p> 	<p>Front</p>  <p><i>equilateral triangle</i></p>	<p>Side</p>  <p><i>rectangle</i></p>	<p>Plan</p>  <p><i>rectangle</i></p>
<p>(b)</p> 			
<p>(c)</p> 			
<p>(d)</p> 			


The diagrams show the front and side elevations and the plan of some 3d shapes.
 Sketch and name each 3d shape and then draw its net.
 The first one has been done for you.


(a) Front Side Plan Sketch  Net




triangular prism

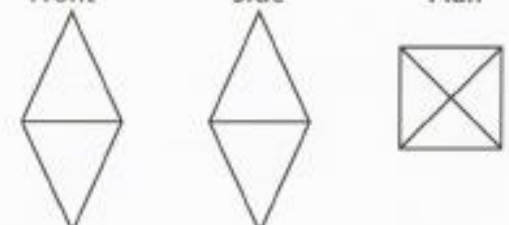
(b) Front Side Plan Sketch  Net




(c) Front Side Plan Sketch  Net



(d) Front Side Plan Sketch  Net



(e) Front Side Plan Sketch  Net

