

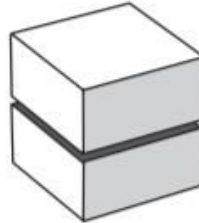
## 3D Shapes-Questions

Key Stage 3: 2003 Paper 2 Level 3-5

1.

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5. (a) I slice a cube in half like this:

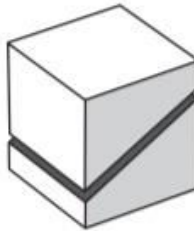


How many faces does each piece have?



1 mark

(b) Then I slice another cube in half like this:

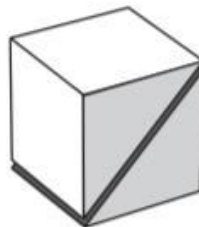


How many faces does each piece have?



1 mark

(c) I slice a different cube in half through its corners like this:



How many faces does each piece have?

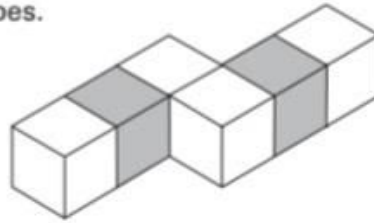


1 mark

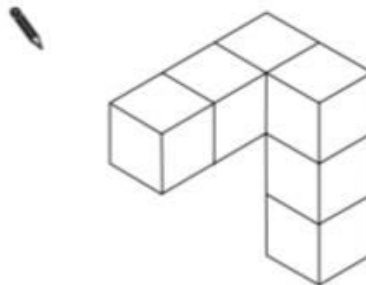
Key Stage 3: 2004 Paper 2 Level 3-5

2.

13. Look at this shape made from six cubes.  
Four cubes are white.  
Two cubes are grey.



- (a) Part of the shape is rotated through  $90^\circ$  to make the shape below.  
Shade the faces that are grey.



1 mark

- (b) After another rotation of  $90^\circ$ , the shape is a cuboid.  
Draw this cuboid on the grid below.



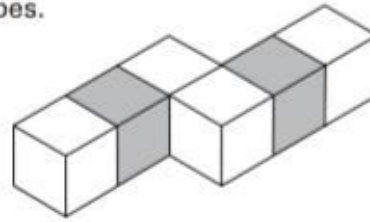
Isometric grid

2 marks

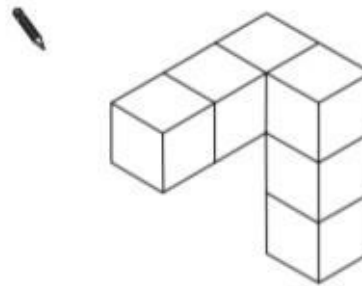
Key Stage 3: 2004 Paper 2 Level 4-6

3.

6. Look at this shape made from six cubes.  
 Four cubes are white.  
 Two cubes are grey.



- (a) Part of the shape is rotated through  $90^\circ$  to make the shape below.  
 Shade the faces that are grey.



1 mark

- (b) After another rotation of  $90^\circ$ , the shape is a cuboid.  
 Draw this cuboid on the grid below.

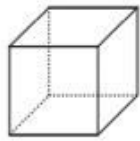


2 marks

Key Stage 3: 2005 Paper 1 Level 3-5

4.

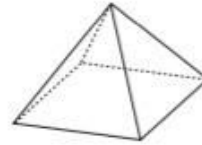
4. Look at the diagrams showing 3-D shapes.



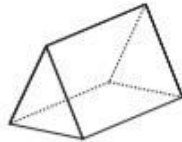
A



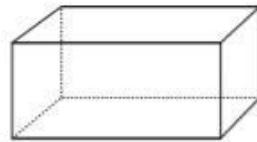
B



C



D



E

(a) One of the shapes has **one square face** and **four triangular faces**.  
Write the letter of this shape.



.....

1 mark

(b) Two of the shapes have **six faces**.  
Write the letters of these shapes.



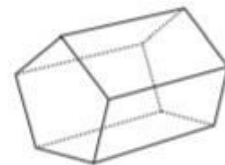
.....

and

.....

1 mark

(c) Now look at this diagram showing another 3-D shape.



**How many faces** does the shape have?



.....

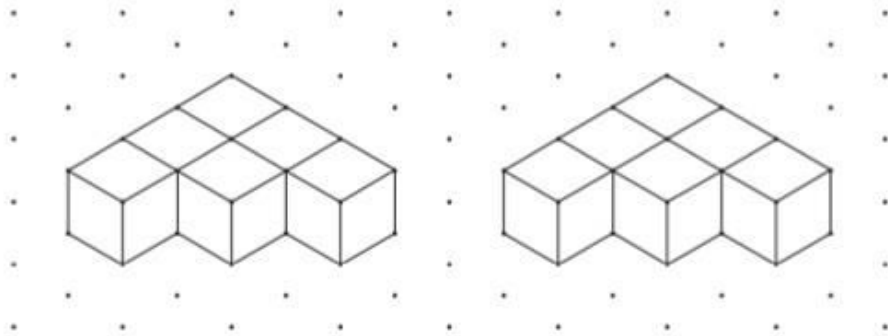
faces

1 mark

Key Stage 3: 2005 Paper 1 Level 4-6

5.

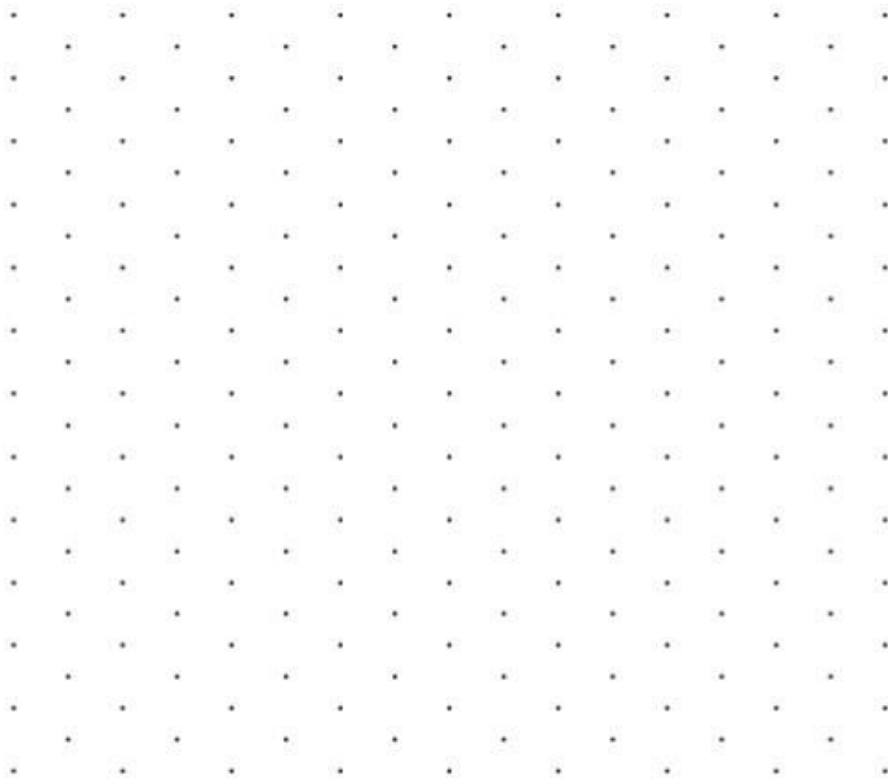
19. I join six cubes face to face to make each 3-D shape below.



Isometric grid

Then I join the 3-D shapes to make a **cuboid**.

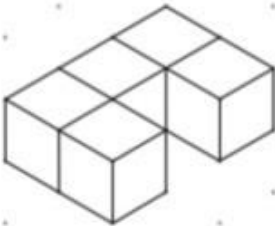
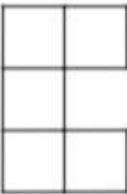
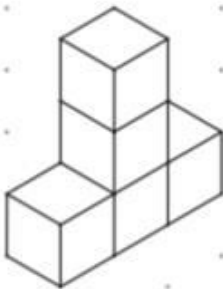


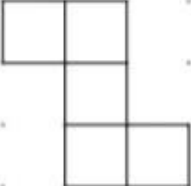
Draw this cuboid on the grid below.



Isometric grid

2014/15  
2014/15  
2 marks

18. Each shape below is made from **five cubes** that are joined together.  
Complete the missing diagrams below.

Shape drawn on an isometric grid	View from above of the shape drawn on a square grid
	
	
	

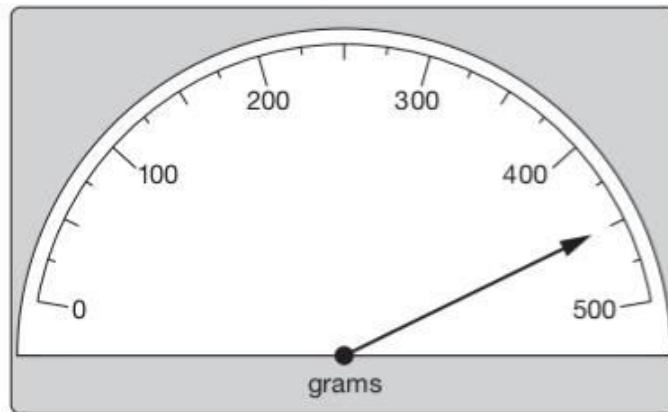
1 mark

2 marks

6. Anna is making a cake.

(a) The scale shows how much sugar she uses.

How much sugar does Anna use?

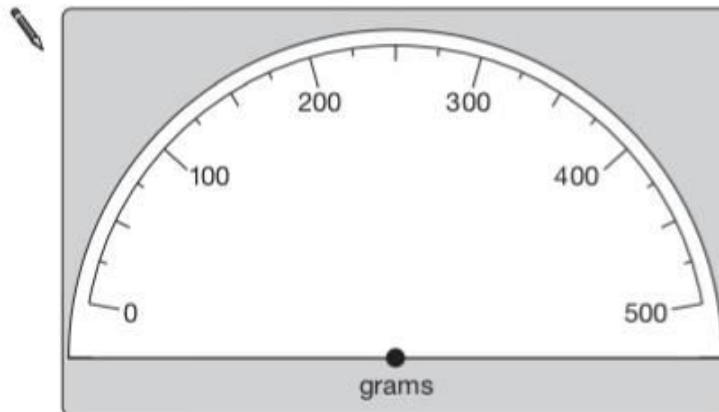


 \_\_\_\_\_ g

1 mark

(b) Anna uses **275g** of raisins.

Draw the arrow on the scale to show 275g.



1 mark

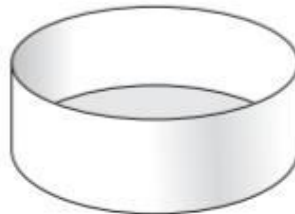
- (c) Anna put the cake in the oven at **11 am**.  
She took the cake out of the oven after **3 hours**.  
At what time did she take the cake out of the oven?



\_\_\_\_\_

1 mark

- (d) Look at this diagram of the cake tin.



Tick (✓) the **correct name** for the shape of the tin.



Cube

Cuboid

Cylinder

Pyramid

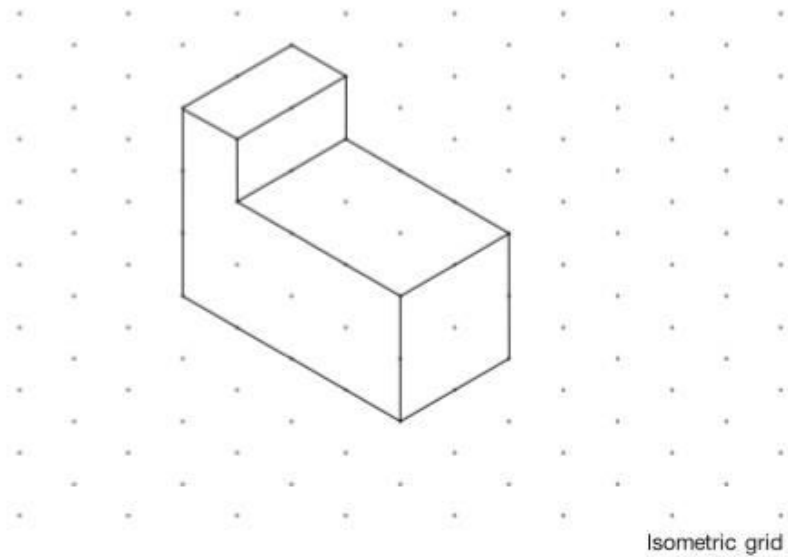
Cone

1 mark

8.



22. (a) Look at the drawing of a prism on the grid.



Isometric grid

How many **faces** does the prism have?

 \_\_\_\_\_

1 mark

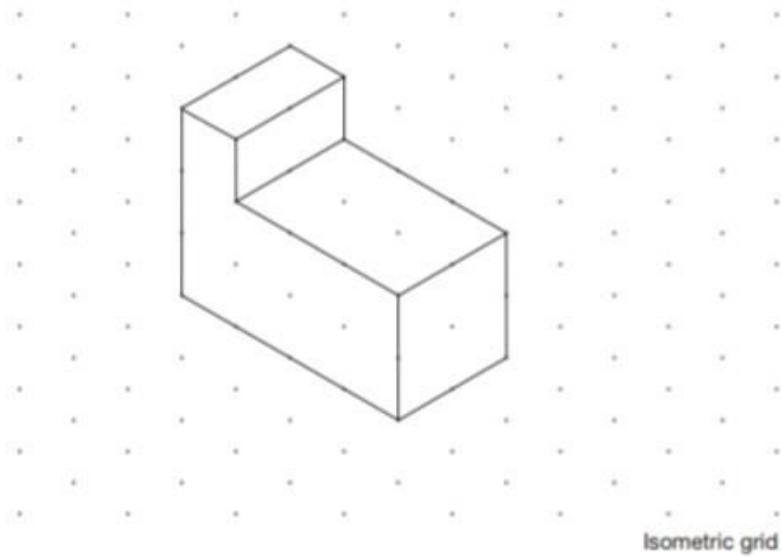
(b) Use the grid below to draw a solid with **6 faces**.



Isometric grid

1 mark

15. (a) Look at the drawing of a prism on the grid.



How many **faces** does the prism have?

 \_\_\_\_\_

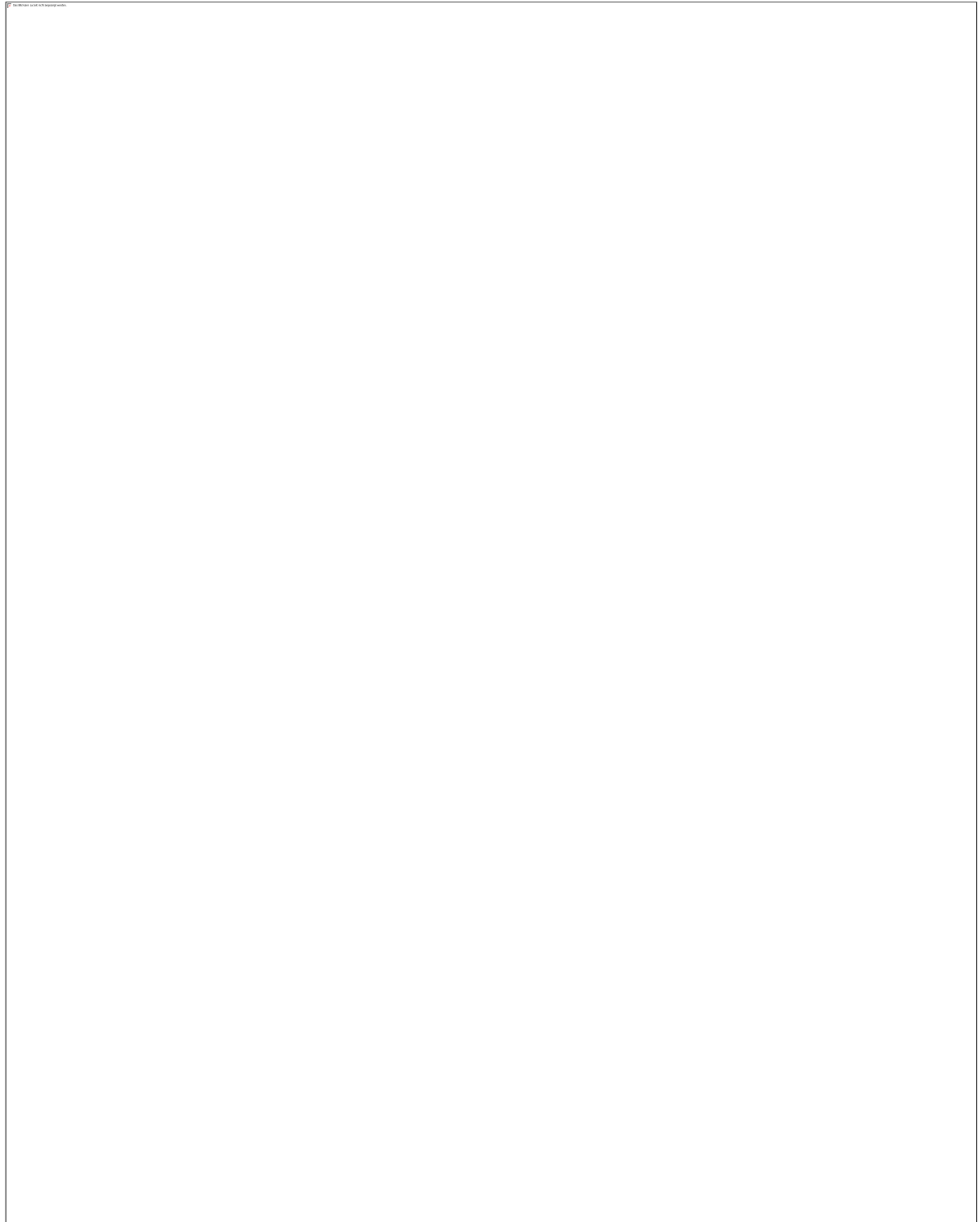
\_\_\_\_\_  
1 mark

(b) Use the grid below to draw a solid with **6 faces**.

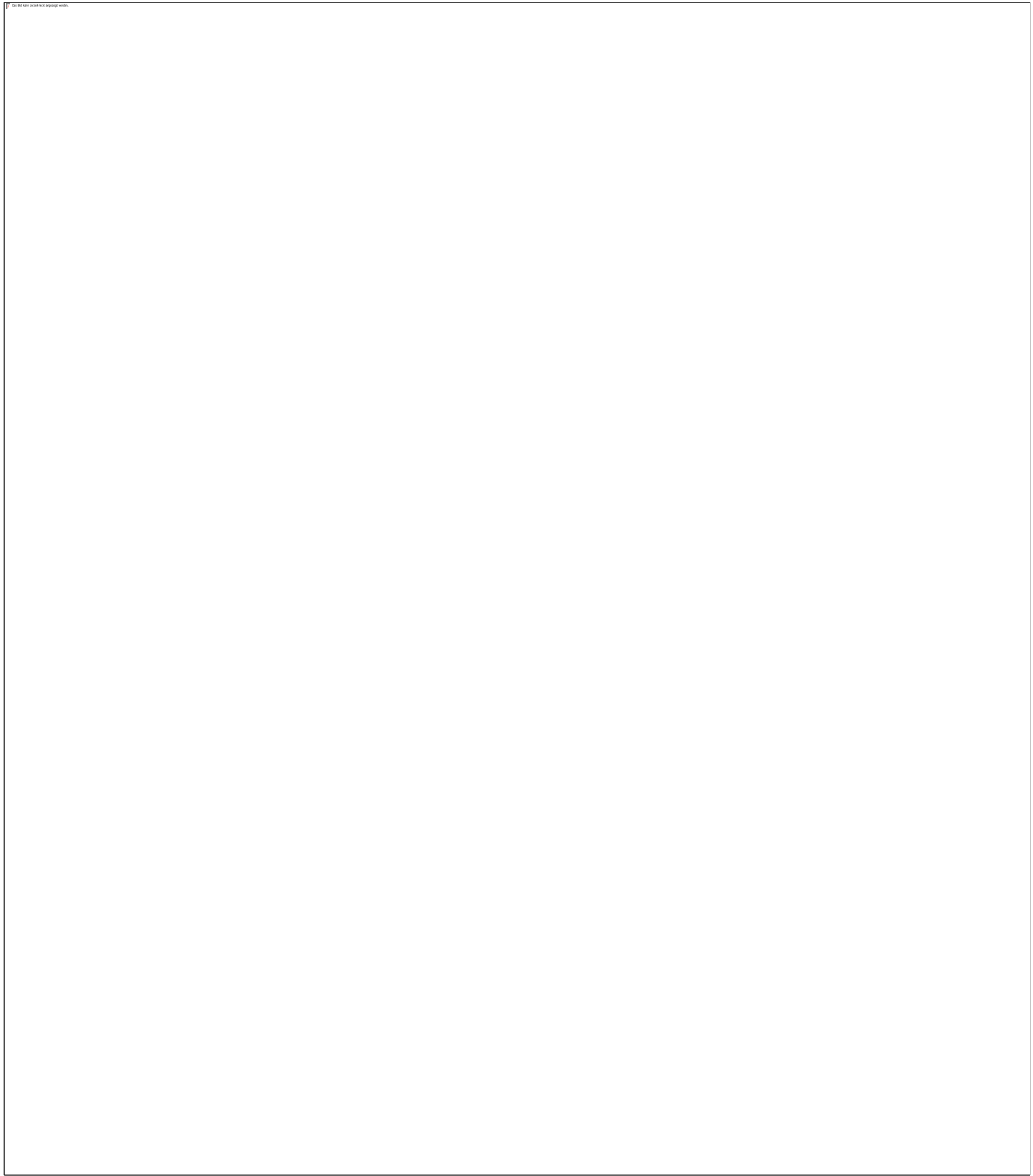


\_\_\_\_\_  
1 mark

Key Stage 3: 2008 Paper 2 Level 3-5



11.



Key Stage 3: 2008 Paper 1 Level 4-6

12.



Complete the views of the new shape on the grid.

The first one is done for you.

View from the **TOP**      View from the **FRONT**      View from the **SIDE**

\_\_\_\_\_

\_\_\_\_\_

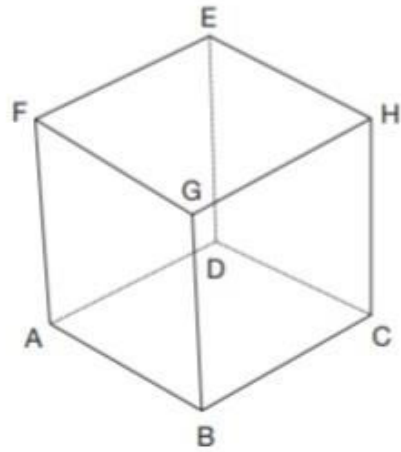
2 marks

Square grid

Key Stage 3: 2008 Paper 2 Level 4-6

13.

10. Look at the diagram of Megan's cube.



Megan puts her finger on point A.

She can move her finger along **3 edges** to get from point **A** to point **H** without taking it off the cube.

Complete the table below to show **all 6 ways** she can do this.

One way is done for you.

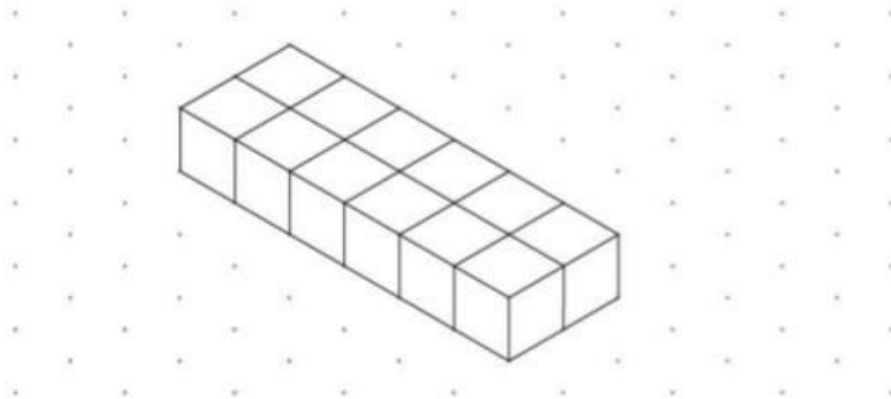
Ways of moving from A to H	
A	→ B → C → H

\_\_\_\_\_  
2 marks

Key Stage 3: 2009 Paper 2 Level 3-5

14.

25. Look at the cuboid drawn on the grid.  
It is made from **12 cubes**.



Isometric grid

On the grid below, draw a **different** cuboid made from 12 cubes.



Isometric grid

\_\_\_\_\_  
2 marks

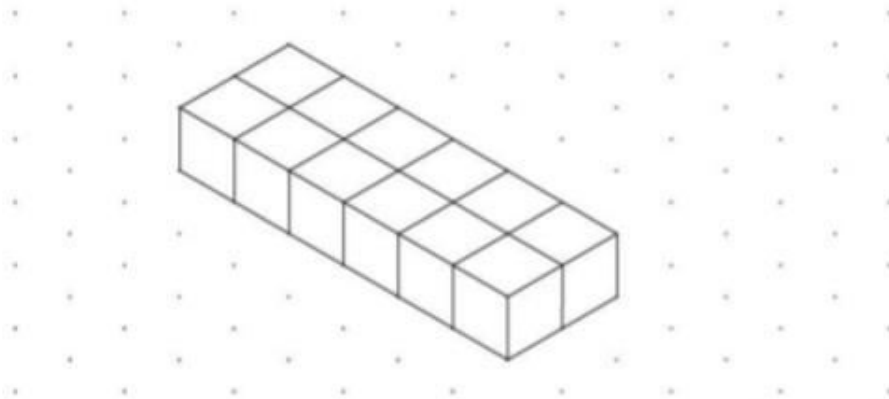
Key Stage 3: 2009 Paper 2 Level 4-6

15.



16. Look at the cuboid drawn on the grid.

It is made from **12 cubes**.



Isometric grid

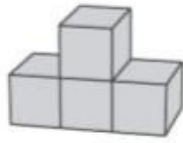
On the grid below, draw a **different** cuboid made from 12 cubes.



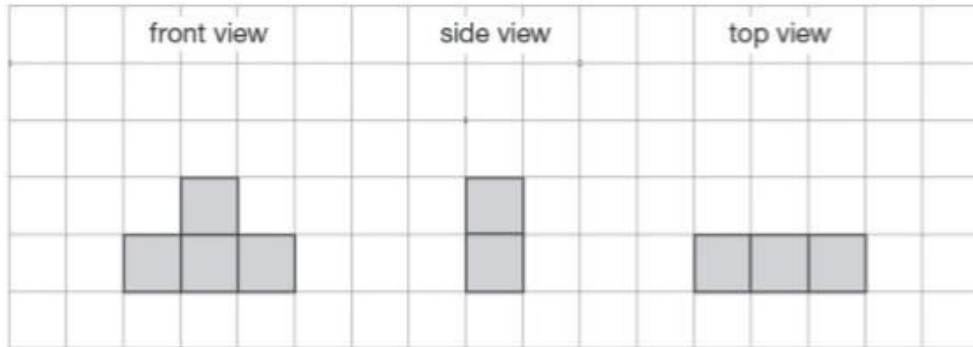
Isometric grid

\_\_\_\_\_  
2 marks

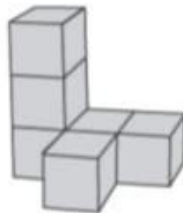
23. Alison builds a shape with some cubes.



These are the front view, side view and top view of her shape.



Tariq builds a different shape with some cubes.



Draw the front view, side view and top view of his shape.

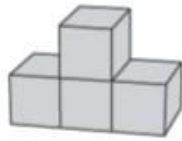


\_\_\_\_\_

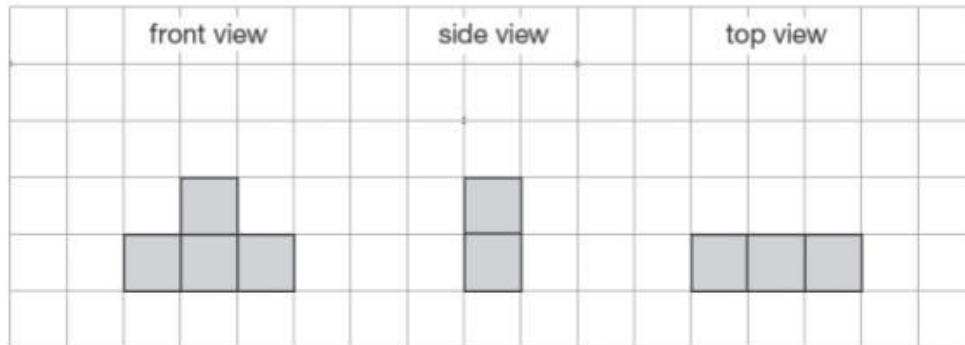
\_\_\_\_\_

2 marks

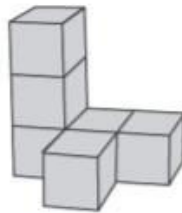
13. Alison builds a shape with some cubes.



These are the front view, side view and top view of her shape.



Tariq builds a different shape with some cubes.



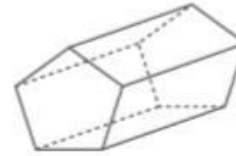
Draw the front view, side view and top view of his shape.



18.




24. The table shows information about a **pentagonal** prism.

	Pentagonal prism
Number of <b>vertices</b>	10
Number of <b>rectangular faces</b>	5
<b>Total number of faces</b>	7







Pentagonal prism

- (a) Complete the table to show information about a **triangular** prism.

	Triangular prism
Number of <b>vertices</b>	
Number of <b>rectangular faces</b>	
<b>Total number of faces</b>	

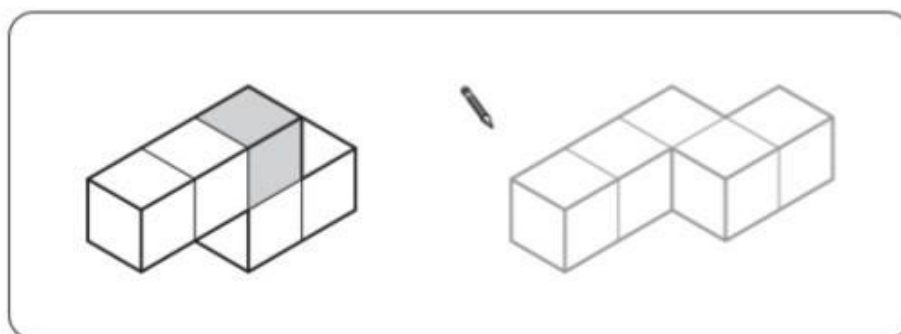
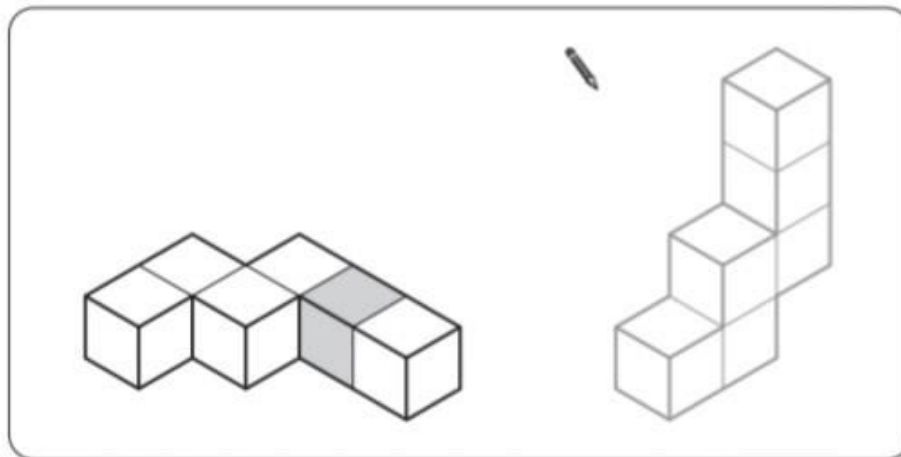
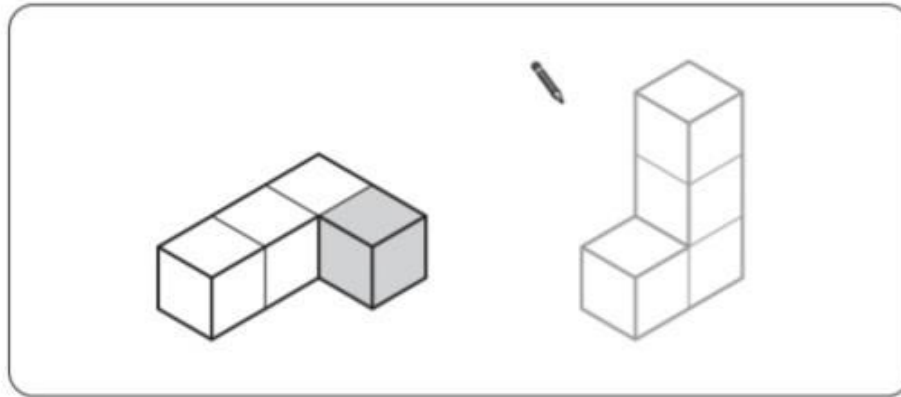
1 mark

- (b) Complete the table.

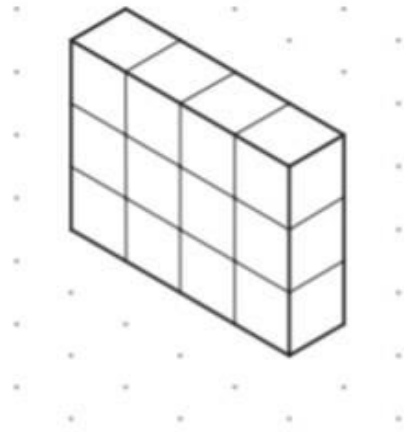
	 _____ prism	 _____ prism
Number of <b>vertices</b>	12	
Number of <b>rectangular faces</b>	6	
<b>Total number of faces</b>	8	10

3 marks

5. Here are three pairs of shapes made from cubes.  
In each pair, **shade one cube** to make the pair the same.

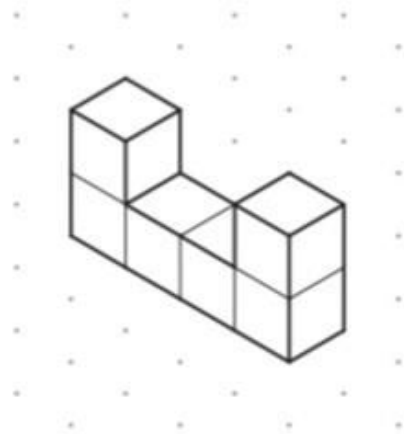


17. The diagram shows a cuboid.



Isometric grid

The cuboid is cut into two pieces.  
This diagram shows one of the pieces.



Isometric grid

Draw the other piece on this grid.

