

Name: \_\_\_\_\_

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# GCSE Unit 8 Practice Assessment

Date:

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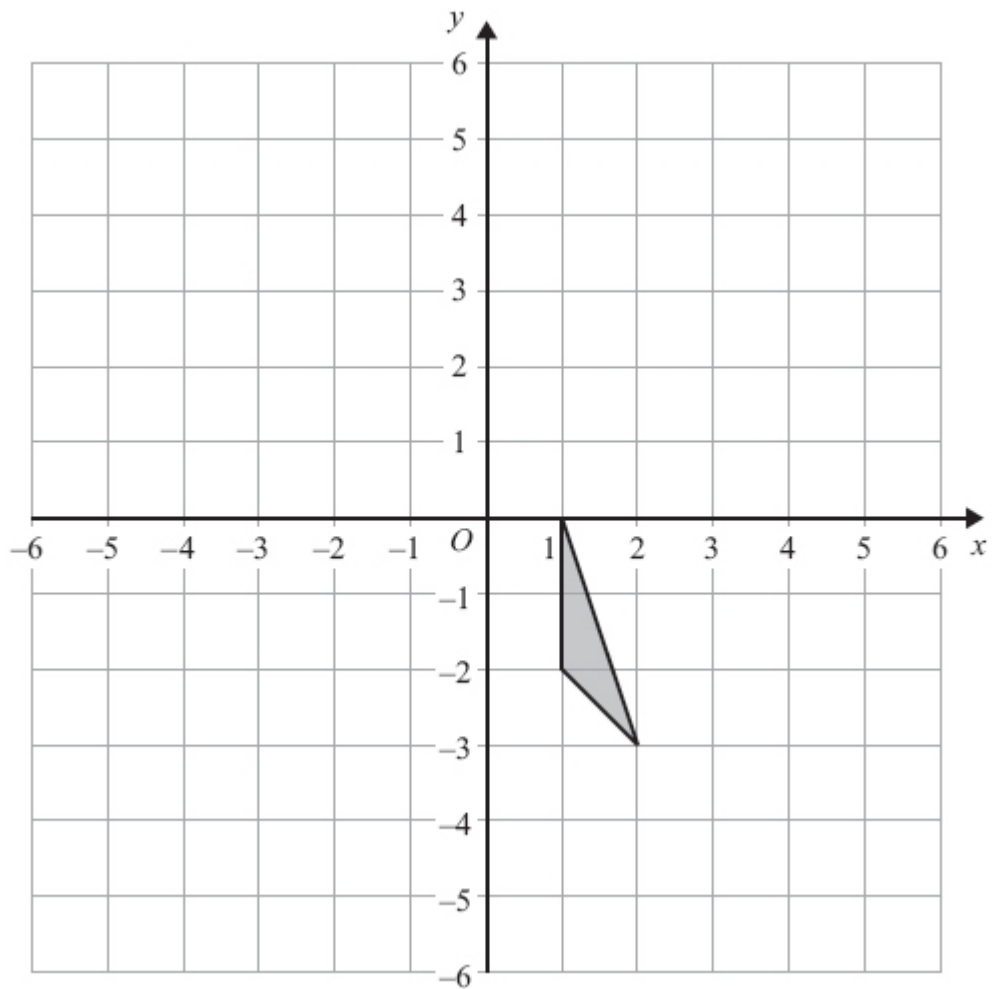
**Time:** 50 minutes

**Total marks available:** 45

**Total marks achieved:** \_\_\_\_\_

## Questions

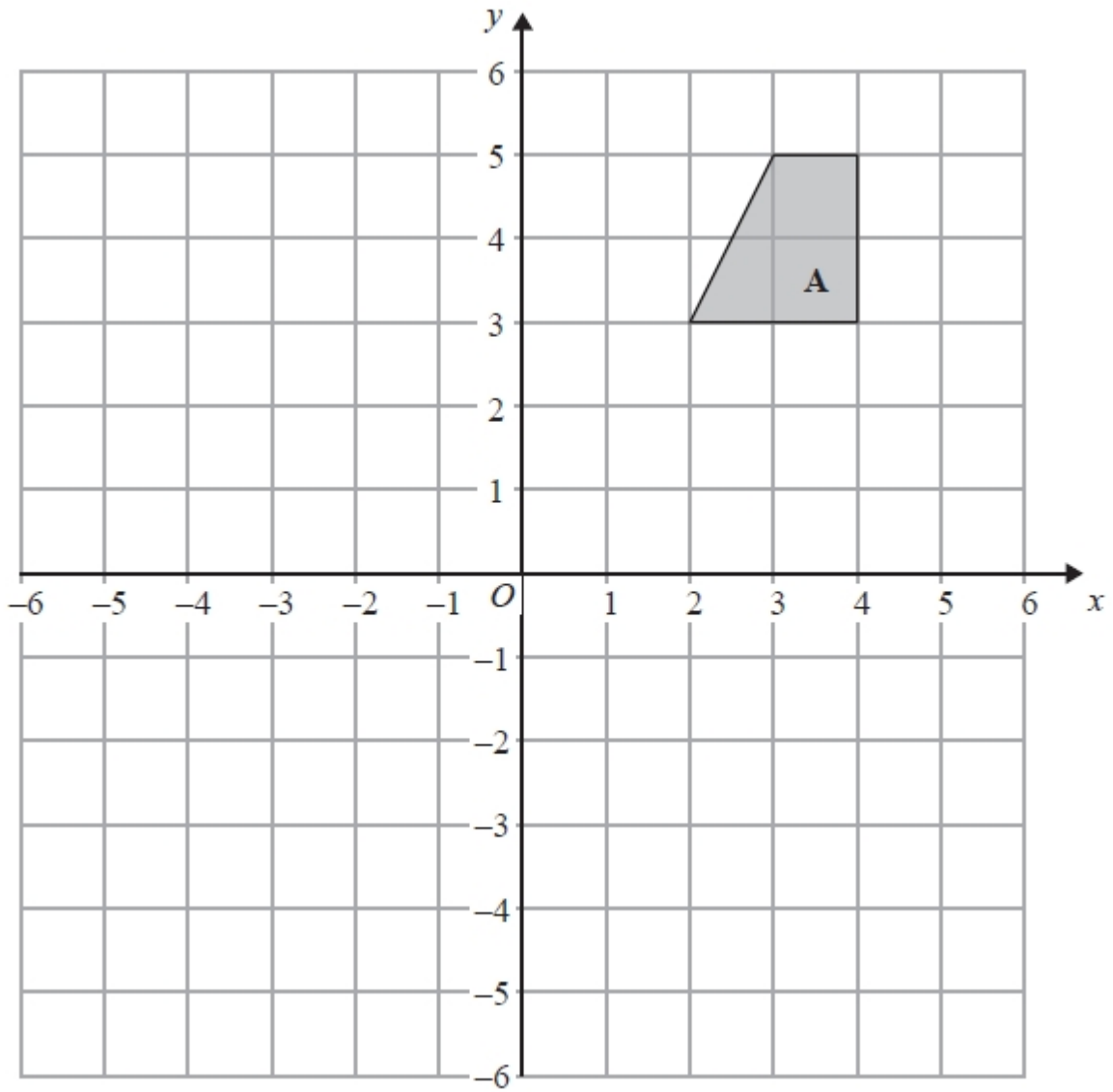
Q1.



Translate the triangle by  $\begin{pmatrix} -3 \\ 2 \end{pmatrix}$ .

**(Total for Question is 2 marks)**

**Q2.**

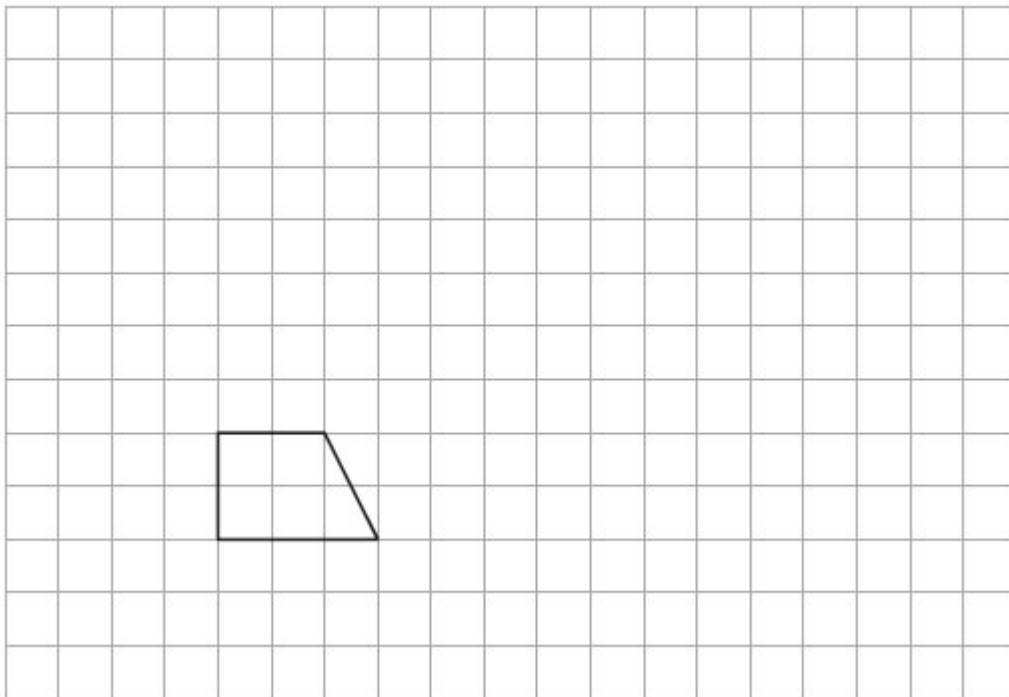


On the grid, rotate shape **A**  $180^\circ$  about the point (1, 1).

**(Total for Question is 2 marks)**

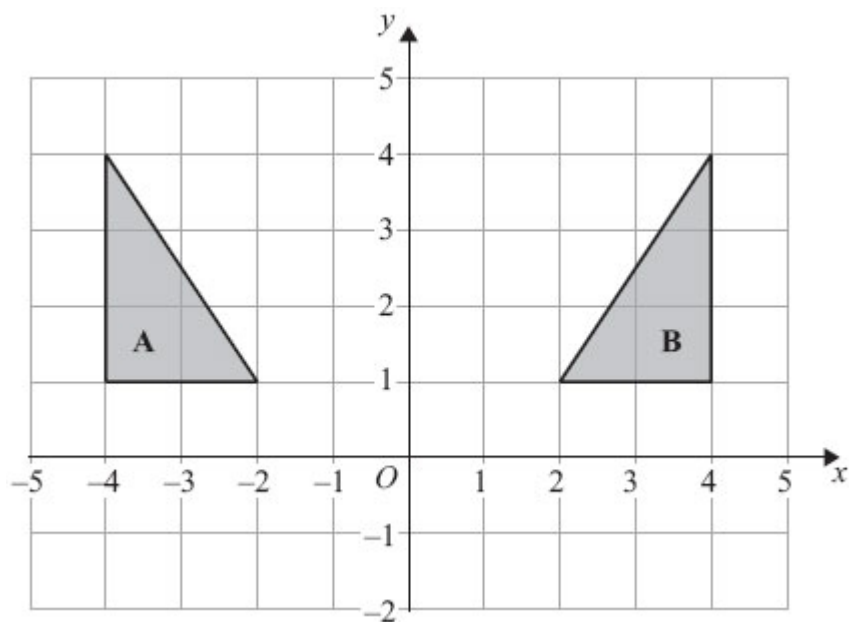
**Q3.**

Here is a shape drawn on a grid.



(a) On this grid, draw an enlargement of the shape with scale factor 3

(2)



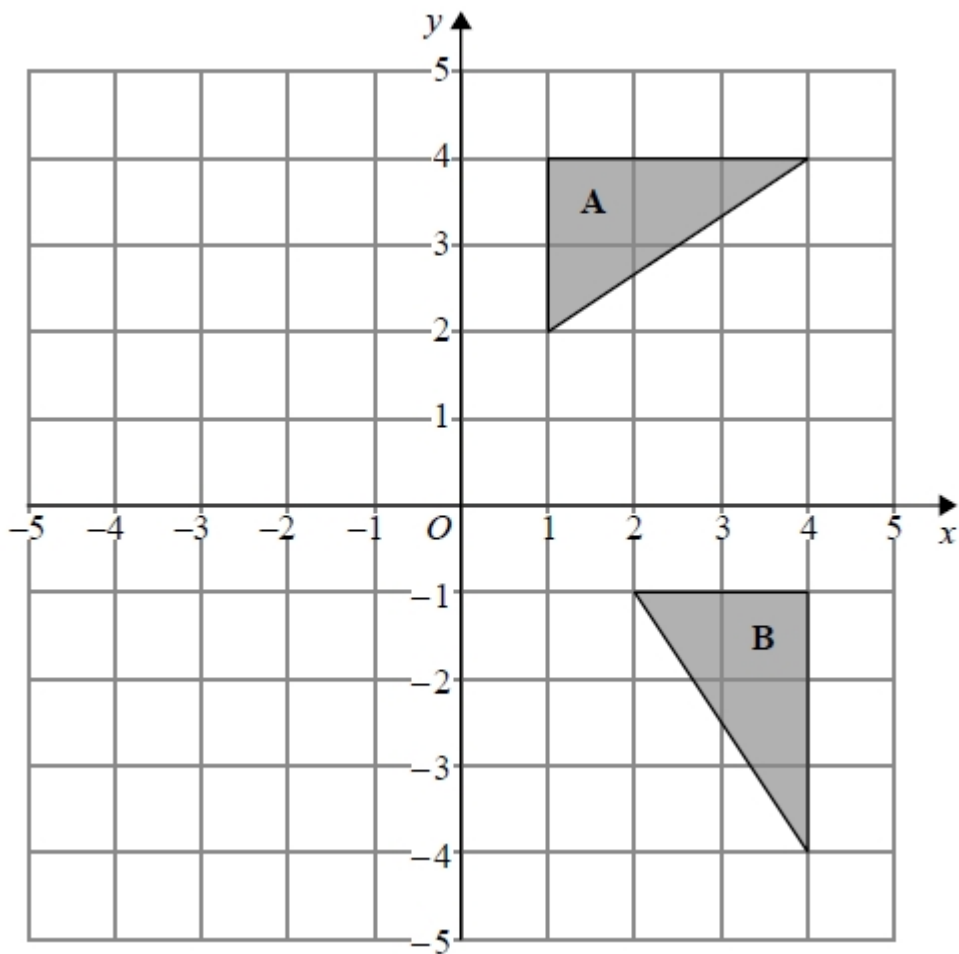
(b) Describe fully the single transformation that maps shape **A** onto shape **B**.

.....  
.....

(2)

**(Total for Question is 4 marks)**

**Q4.**



Describe fully the single transformation that maps triangle **A** onto triangle **B**.

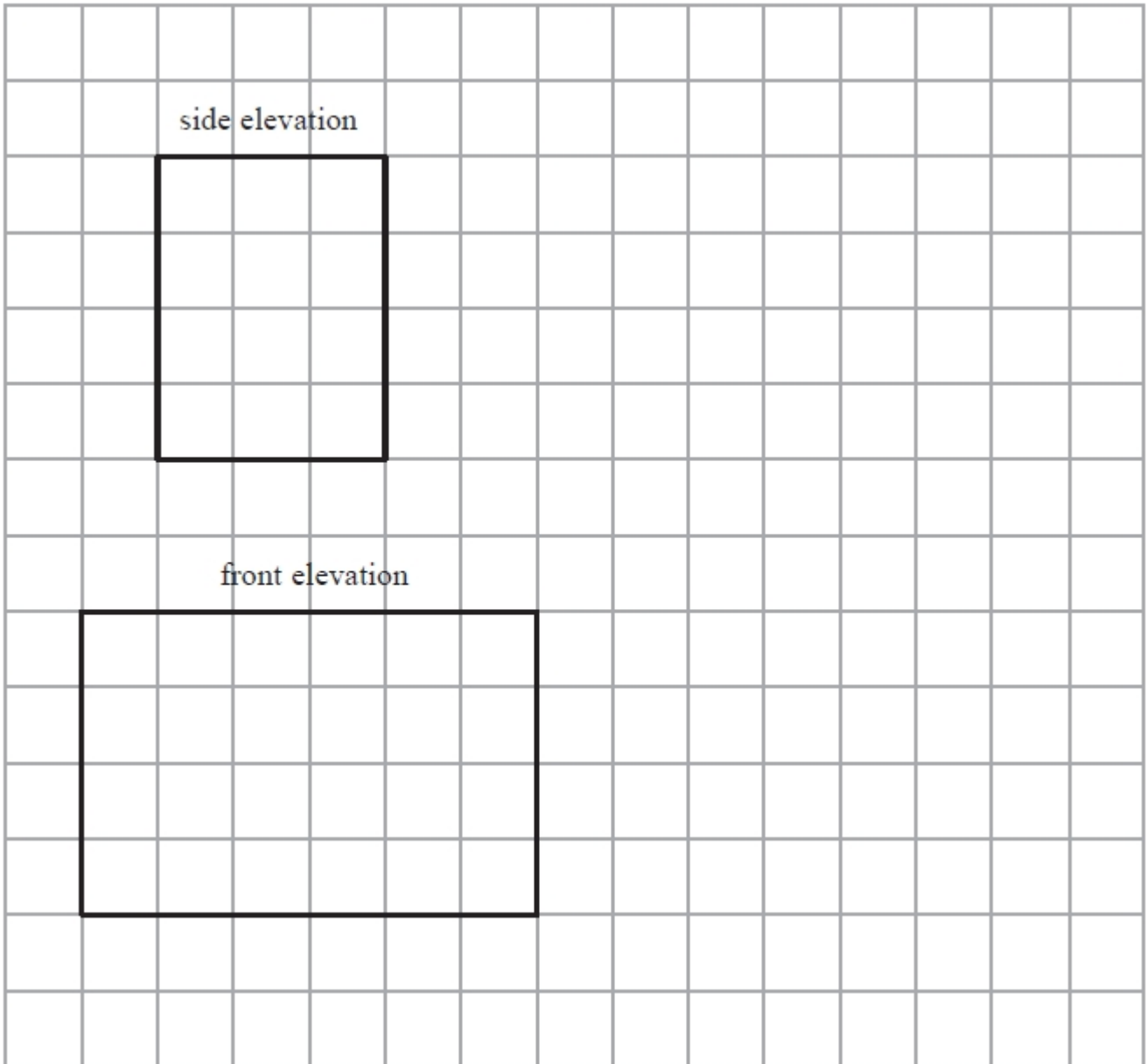
.....

.....

**(Total for question = 2 marks)**

**Q5.**

The side elevation and the front elevation of a cuboid are drawn on the centimetre grid.

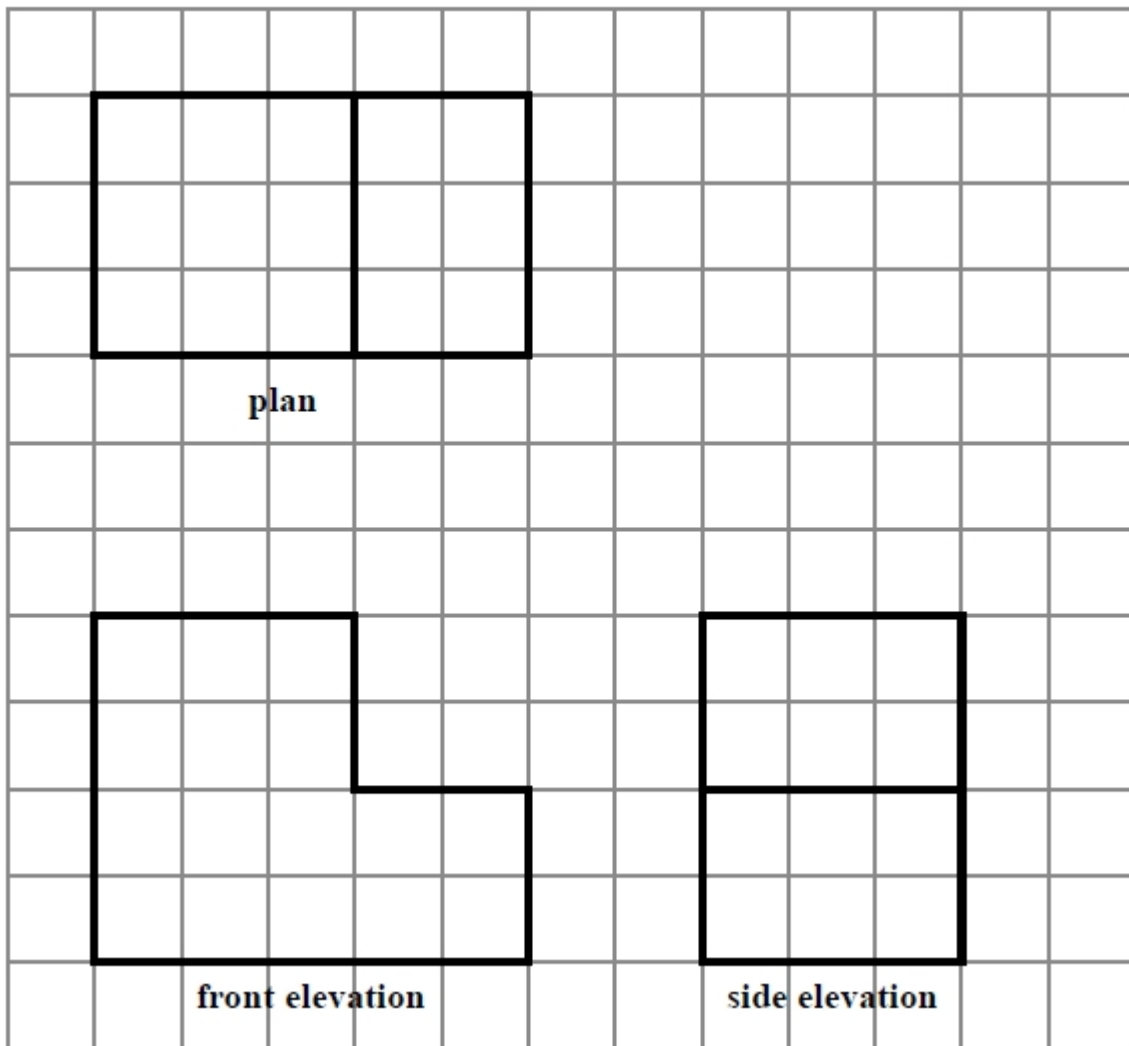


On the grid, draw an accurate plan of the cuboid.

**(Total for Question is 2 marks)**

**Q6.**

The plan, front elevation and side elevation of a solid prism are drawn on a centimetre grid.

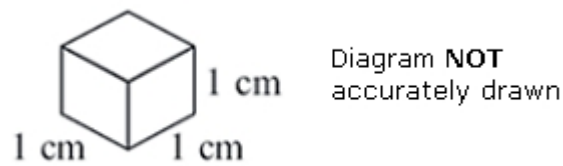


In the space below, draw a sketch of the solid prism.  
Write the dimensions of the prism on your sketch.

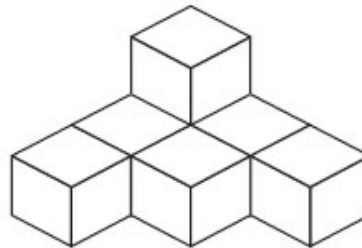
**(Total for question = 2 marks)**

**Q7.**

Amy has some toy bricks.  
Each brick is a cube of side 1 cm.



Amy uses some of the bricks to make this solid shape.

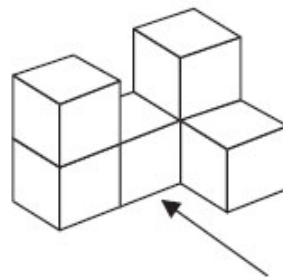


Amy adds some more of the bricks to this solid shape to make a cube of side 3 cm.

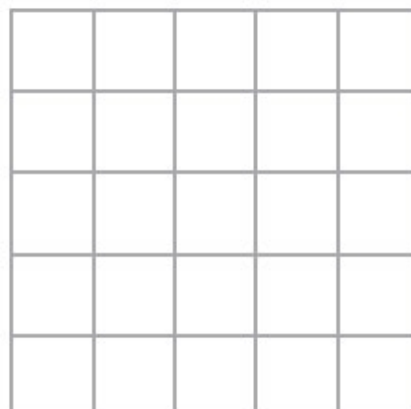
(a) How many bricks does Amy add?

.....  
(2)

Naveed uses some of the bricks to make this solid shape.



(b) On the grid below, draw the view of the solid shape from the direction shown by the arrow.



(2)  
**(Total for Question is 4 marks)**



**Q8.**

Make an accurate drawing of an equilateral triangle of side length 5 cm.

**(Total for Question is 2 marks)**

**Q9.**

Here is a scale drawing of a rectangular garden  $ABCD$ .



Scale: 1 cm represents 1 metre.

Jane wants to plant a tree in the garden

at least 5m from point  $C$ ,  
nearer to  $AB$  than to  $AD$   
and less than 3m from  $DC$ .

On the diagram, shade the region where Jane can plant the tree.

**(Total for Question is 4marks)**

**Q10.**

Here is a pyramid with a square base.  
The sloping faces are identical isosceles triangles.

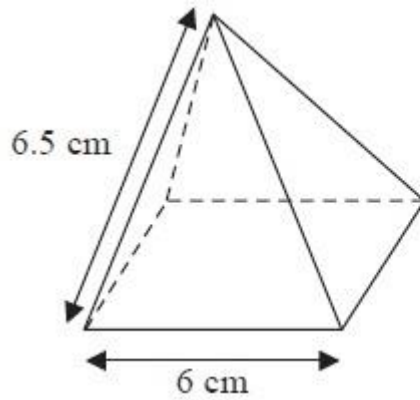
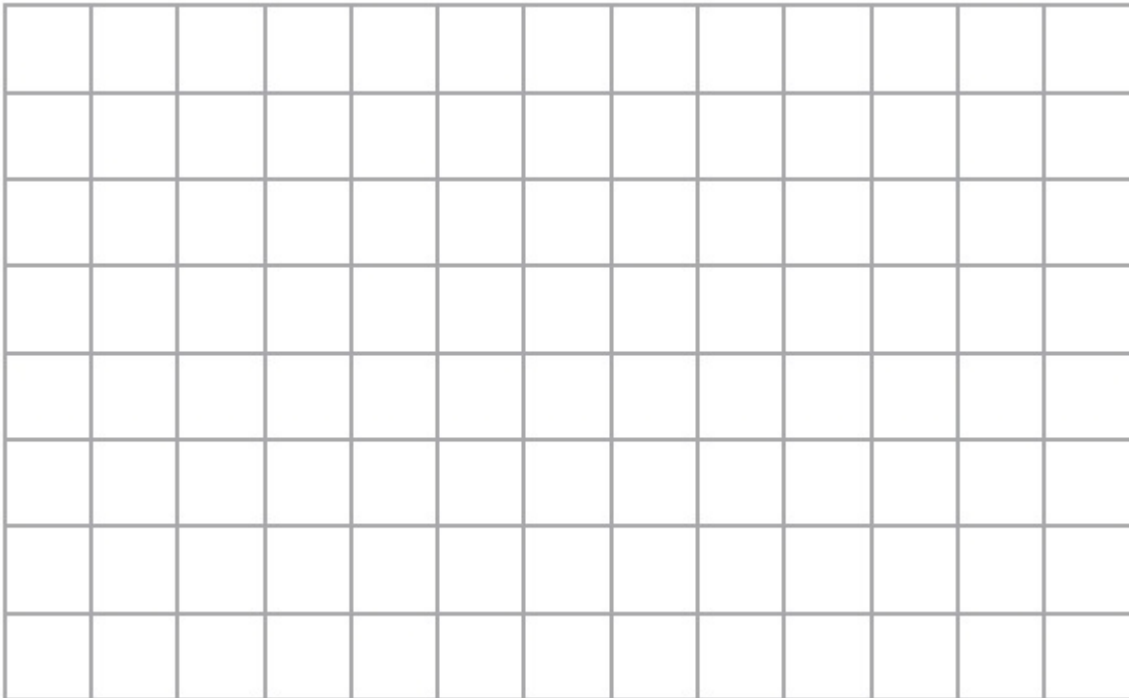


Diagram **NOT**  
accurately drawn

(a) Draw a full size accurate plan of the pyramid on the centimetre square grid.



(2)

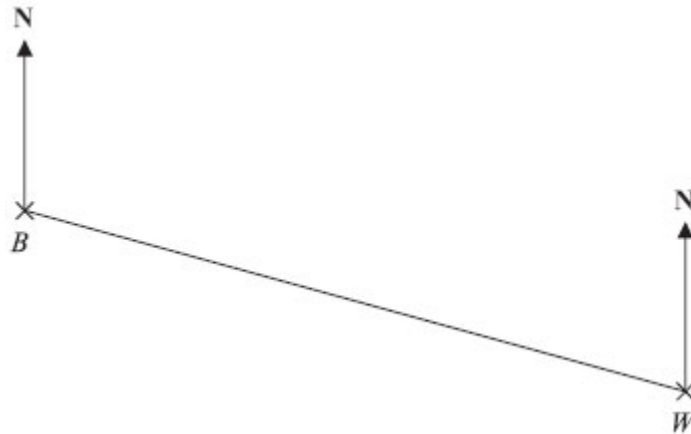
(b) Using a ruler and compasses, construct an accurate drawing of one of the triangular sloping faces of the pyramid.

(3)

**(Total for Question is 5 marks)**

**Q11.**

The diagram shows the positions of two villages, Beckhampton (*B*) and West Kennett (*W*).



Scale: 4 cm represents 1 km.

(a) Work out the real distance, in km, of Beckhampton from West Kennett.

.....

(2)

The village, Avebury (*A*), is on a bearing of  $038^\circ$  from Beckhampton.

On the diagram, *A* is 6 cm from *B*.

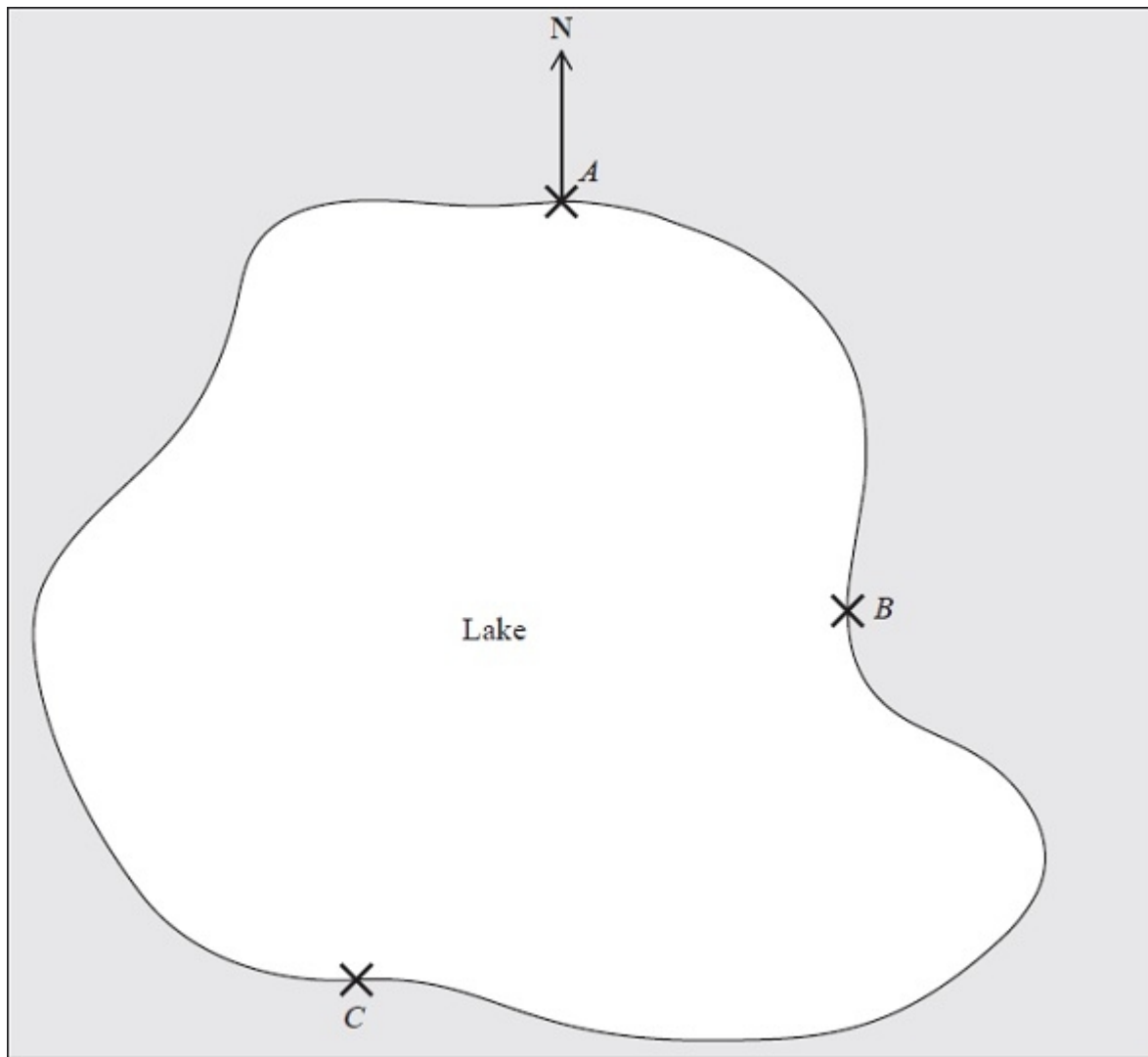
(b) On the diagram, mark *A* with a cross (x).  
Label the cross *A*.

(2)

**(Total for Question is 4 marks)**

**Q12.**

The map shows the positions of three places *A*, *B* and *C* on the edge of a lake.



Scale 1 cm represents 2 km

(a) Find the bearing of *B* from *A*.

..... °  
(1)

A ferry travels in a straight line from *A* to *B*.

It then travels in a straight line from *B* to *C*.

A speedboat travels in a straight line from *A* to *C*.

(b) How many more kilometres does the ferry travel than the speedboat?

You must show your working.

..... km  
(4)

**(Total for Question is 5 marks)**

**Q13.**

Here is part of a map showing the position of a port **A**.



**B** is a lighthouse 36 km from **A** on a bearing of  $050^\circ$

(a) (i) Construct a diagram to show the position of **B**.  
Use a scale of 1 cm represents 4 km.

(ii) Write down the bearing of **A** from **B**.

(3)

From the lighthouse at **B**, ships can be seen when they are within a range of 23 km of **B**.  
A ship sails due East from **A**.

(b) Show, **by calculation**, that on this course this ship will not be seen from the lighthouse at **B**.

**You must not use a scale drawing.**

(4)

**(Total for question = 7 marks)**