

# Edexcel GCSE

## Mathematics (Linear) – 1MA0

# 2D & 3D SHAPES



### Materials required for examination

Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser.  
Tracing paper may be used.

### Items included with question papers

Nil



### Instructions

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Use black ink or ball-point pen.

Fill in the boxes at the top of this page with your name, centre number and candidate number.

Answer all questions.

Answer the questions in the spaces provided – there may be more space than you need.

Calculators may be used.

### Information

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The marks for each question are shown in brackets – use this as a guide as to how much time to spend on **each** question.

Questions labelled with an **asterisk** (\*) are ones where the quality of your written communication will be assessed – you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.

### Advice

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Read each question carefully before you start to answer it.

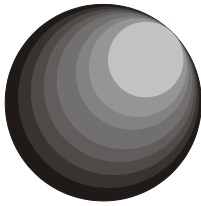
Keep an eye on the time.

Try to answer every question.

Check your answers if you have time at the end.

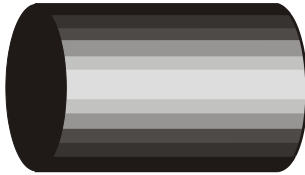
1. Write down the mathematical name for each of these three different 3-D shapes.

(i)



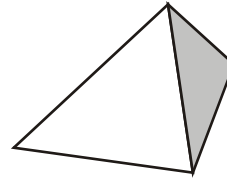
(i) .....

(ii)



(ii) .....

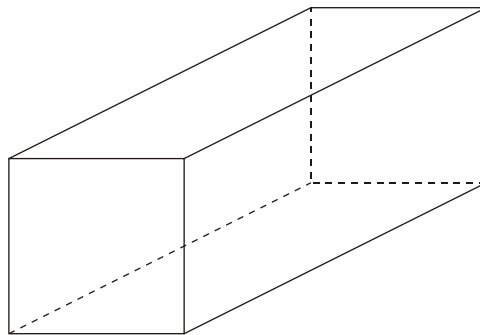
(iii)



(iii) .....

**(3 marks)**

2.



Here is a diagram of a cuboid.

Write down the number of

(i) faces .....

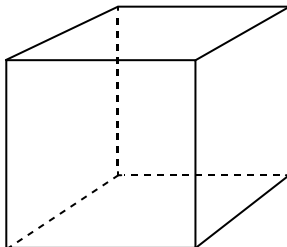
(ii) edges .....

(iii) vertices .....

**(3 marks)**

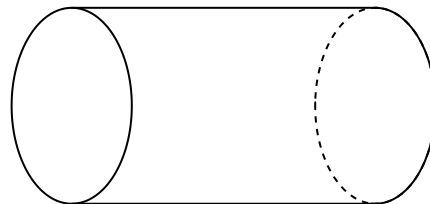
3. Write down the mathematical name of each of these 3-D shapes.

(i)



(i) .....

(ii)


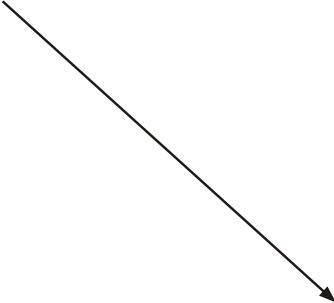
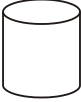
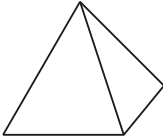
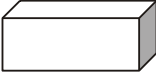
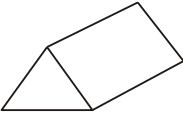


(ii) .....

**(2 marks)**

4. The diagram shows some solid shapes and some mathematical names.  
An arrow has been drawn from one solid shape to its mathematical name.

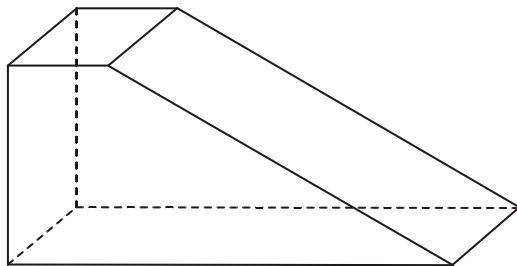
Draw an arrow from each of the other solid shapes to its mathematical name.  
The cube has been done for you.

		pyramid
		triangular prism
		cube
		cylinder
		cuboid

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**(3 marks)**

5. Here is a diagram of a 3-D prism.



Write down the number of (i) faces, .....

(ii) edges, .....

(iii) vertices. ....

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**(3 marks)**

6. The diagram shows a solid triangular prism.

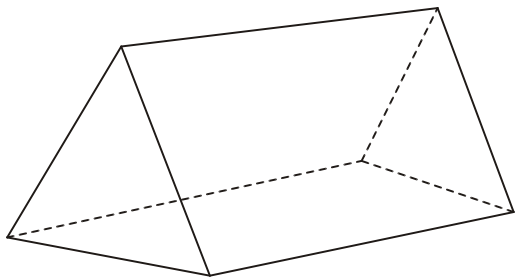
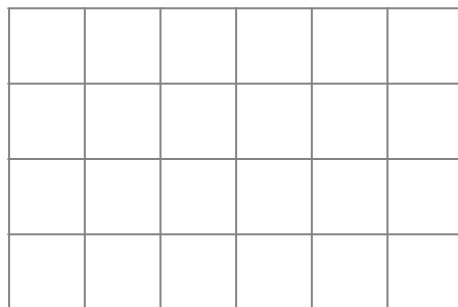


Diagram **NOT**  
accurately drawn

Write down

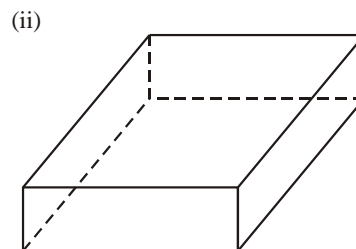
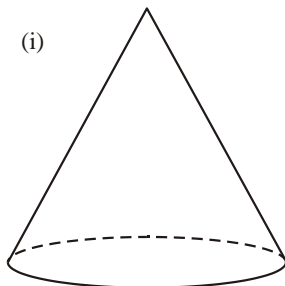
- (i) the number of faces .....
- (ii) the number of edges .....
- (iii) the number of vertices .....
- (iv) On the grid below, draw a trapezium.



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**(4 marks)**

7. Write down the name of each of these two 3-D shapes.



(i) .....

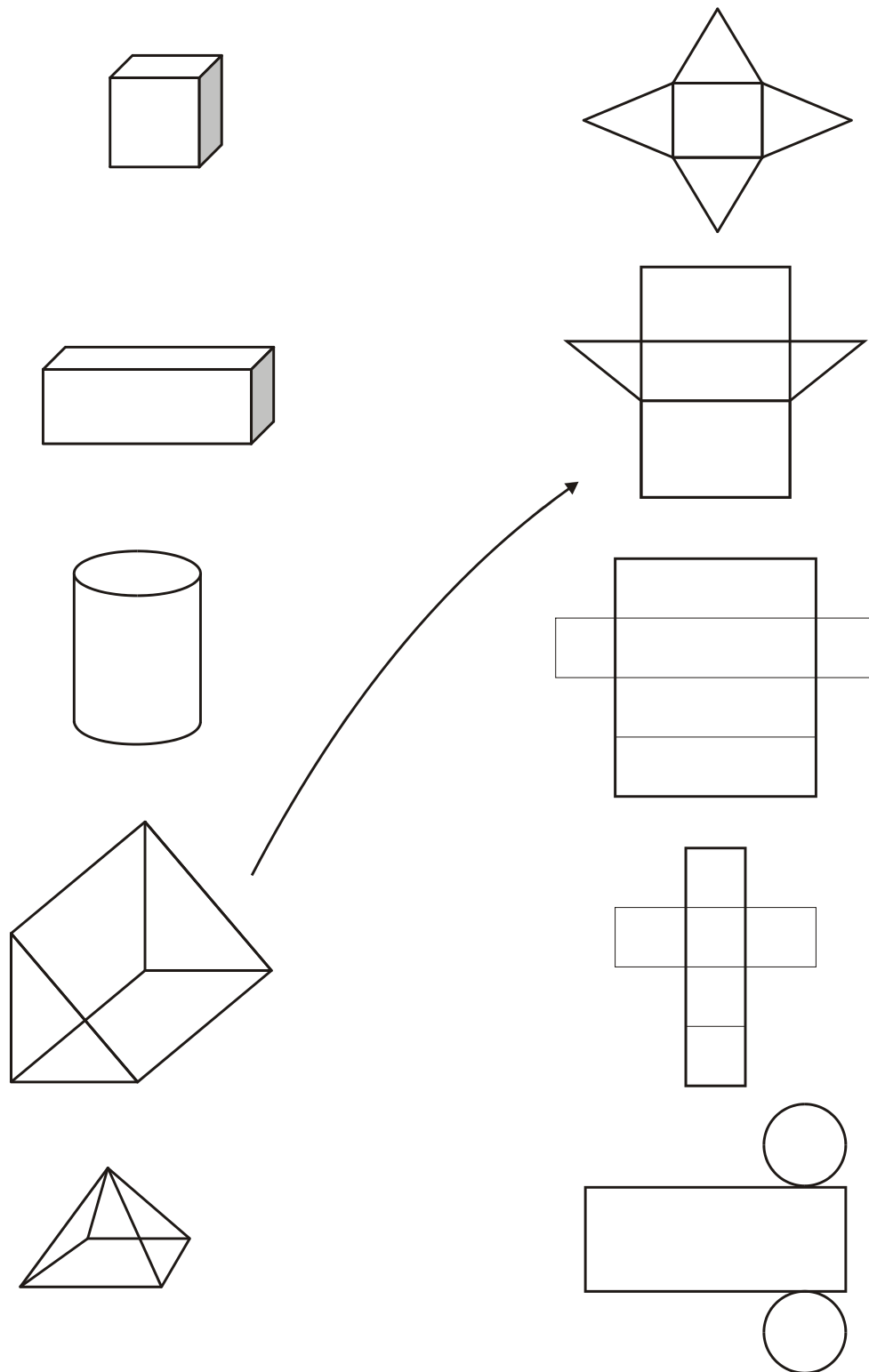
(ii) .....

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**(2 marks)**

8. The diagrams show some solid shapes and their nets.  
An arrow has been drawn from one solid shape to its net.

Draw an arrow from each of the other solid shapes to its net.

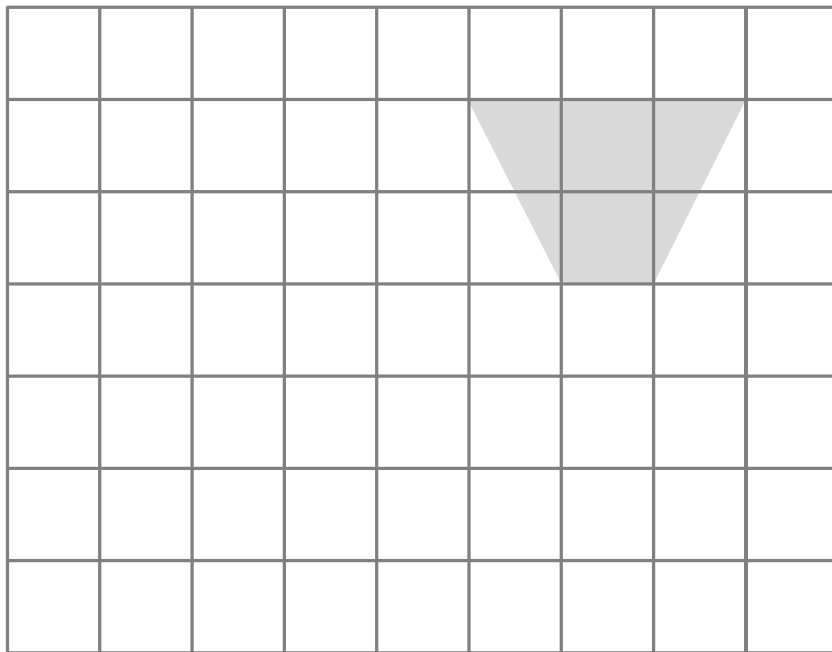


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**(3 marks)**

9. On the grid, show how this shape tessellates.

You should draw at least 6 shapes.

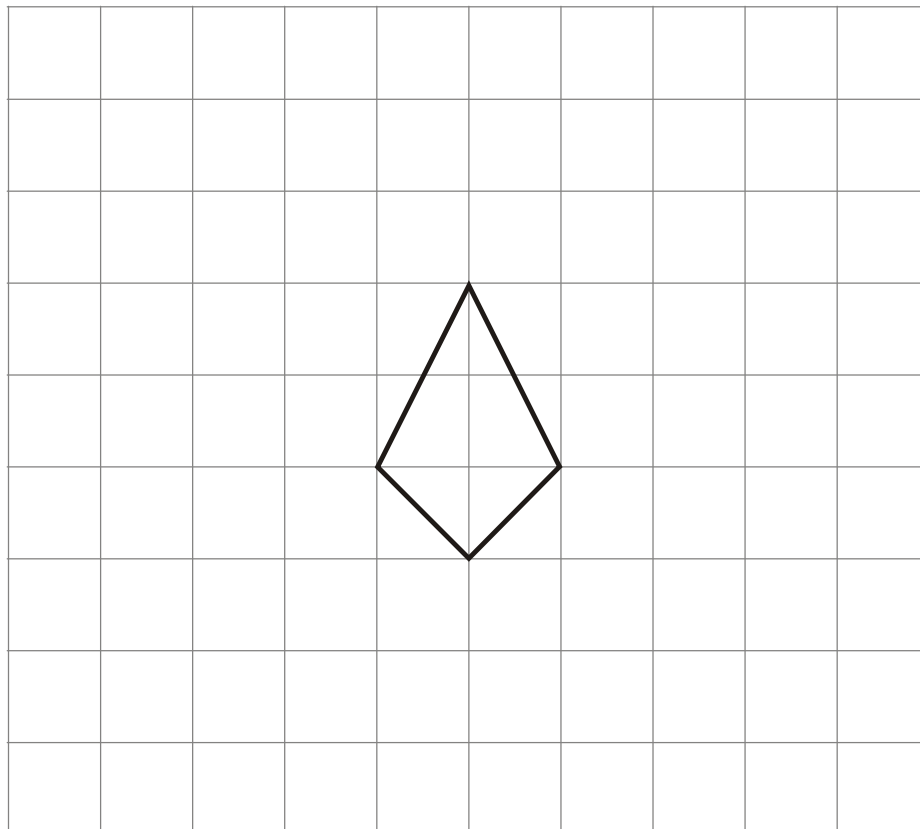


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**(3 marks)**

10. On the grid, show how this kite will tessellate.

You should draw at least 8 kites.

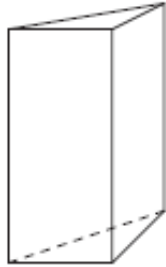


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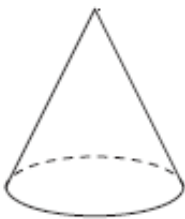
**(3 marks)**

11. Here are 5 solid shapes.

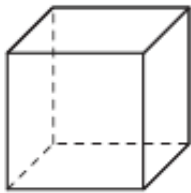
(a) Match each solid shape to its name.  
One has been done for you.



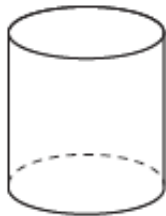
Cone



Cube



Cuboid



Cylinder



Triangular prism

(3)

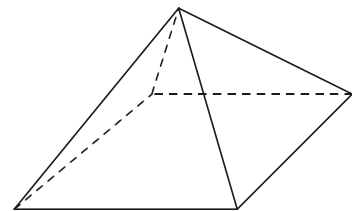
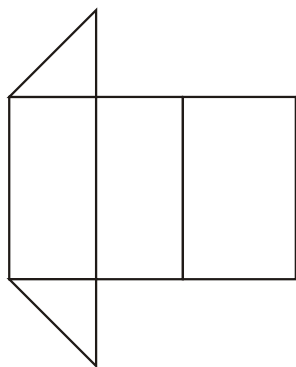
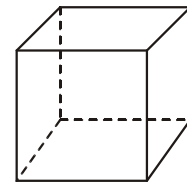
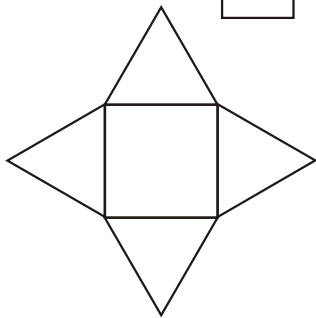
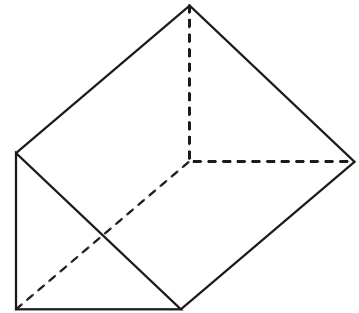
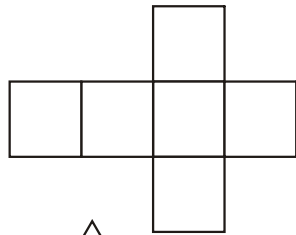
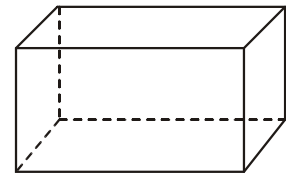
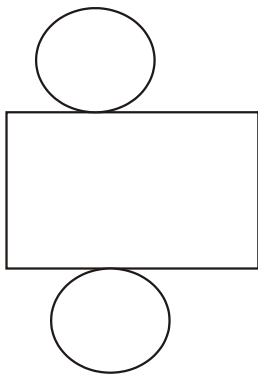
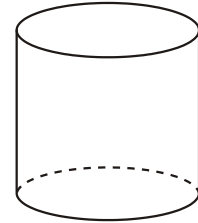
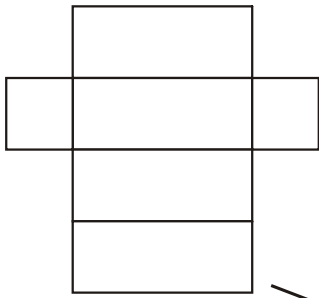
(b) How many faces does the cuboid have?

.....  
(1)

**(4 marks)**

12. The diagram shows some nets and some solid shapes.  
An arrow has been drawn from one net to its solid shape.

Draw an arrow from each of the other nets to its solid shape.



(3 marks)