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
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
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
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) ........................................
   (ii) ........................................
   (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) ........................................
   (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

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

Write down the number of (i) faces, ..........................................
(ii) edges, ..........................................
(iii) vertices. ..........................................

(3 marks)
6. The diagram shows a solid triangular prism.

![Diagram of a solid triangular prism](image)

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.

![Grid with trapezium](image) 

(4 marks)

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

(i) ........................................
(ii) ........................................

(i) ........................................
(ii) ........................................

(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.
9. On the grid, show how this shape tessellates.
   You should draw at least 6 shapes.

10. On the grid, show how this kite will tessellate.
    You should draw at least 8 kites.
11. Here are 5 solid shapes.

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

(b) How many faces does the cuboid have?
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.