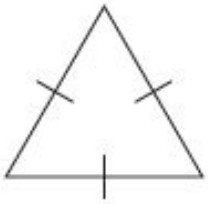
3D Shape Questions

OCR Thursday 8 November 2018 – Morning (Non-Calculator) Foundation Tier

1.

3 **(a)** Complete the statement using a term from the list.



isosceles	equilateral	right-angled	scalene

The triangle is ..... **[1]**

(b) These are the names of some special quadrilaterals.

rectangle	parallelogram	
trapezium	kite	rhombus

Choose a quadrilateral from the list that satisfies each set of conditions.

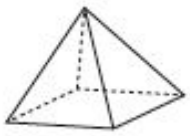
(i)
- All four sides are the same length.
- Opposite angles are equal.

(b)(i) ..... **[1]**

(ii)
- All four angles are right angles.
- Opposite sides are equal.

(ii) ..... **[1]**

(c) This is a square based pyramid.



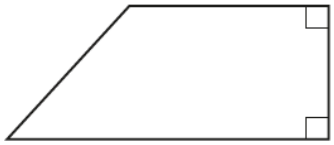
Complete the following.

A square based pyramid has ..... faces and ..... edges. **[2]**

OCR Thursday 2 November 2017– Morning (Calculator) Foundation Tier

2.

1 **(a)** Write down the mathematical name of this shape.



(a) ..... **[1]**

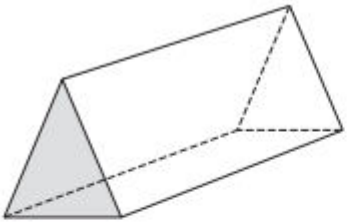
(b) How many faces does a cube have?

(b) ..... **[1]**

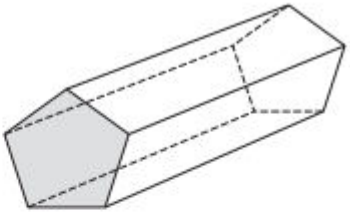
OCR Sample Question Paper 2 – Morning/Afternoon (Non - Calculator) Foundation Tier

3.

9 These prisms have different shapes as end faces.



Triangle



Pentagon

(a) Complete this table.

Shape of end face	Number of faces	Number of edges	Number of vertices
Triangle (3 sides)	5	9	6
Rectangle (4 sides)	.....	.....	8
Pentagon (5 sides)	.....	15	10
Hexagon (6 sides)	8	18	.....

[2]

(b) How many edges and vertices does a prism with a 100-sided end face have?

(b) edges .....

vertices .....

[2]

(c) *F* is the number of faces in a prism.
N is the number of sides of its end face.

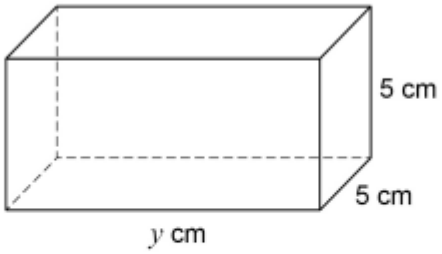
Write down a formula connecting *F* and *N*.

(c) ..... **[2]**

AQA Thursday 4 June 2020 – Morning (Calculator) Foundation Tier

4.

25 Here is a cuboid.



25 (a) Assume that the total surface area of the cuboid is 200 cm^2

Work out the volume of the cuboid.

[3 marks]

Answer _____ cm^3

25 (b) In fact, the total surface area of the cuboid is smaller than 200 cm^2

What does this mean about the volume of the cuboid?

Tick **one** box.

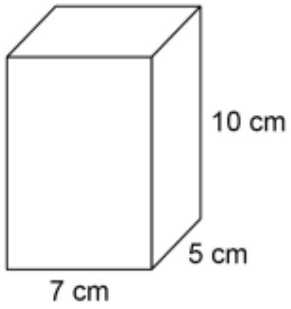
[1 mark]

- ☐ It is smaller than the answer to part (a)
- ☐ It is bigger than the answer to part (a)
- ☐ It is the same as the answer to part (a)
- ☐ It could be any of the above

AQA Tuesday 21 May 2019 – Morning (Non-Calculator) Foundation Tier

5.

14 Here is a cuboid.



Work out the volume.

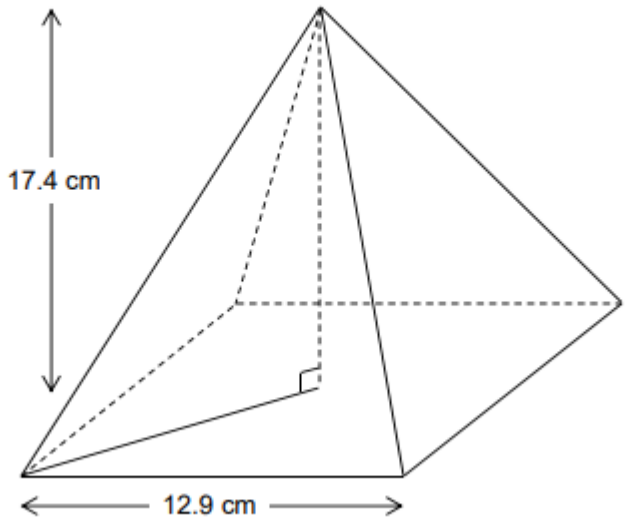
[2 marks]

Answer _____ cm^3

AQA Sample Paper 2– Morning (Calculator) Foundation Tier

6.

21 This pyramid has a square base.



Volume of a pyramid = $\frac{1}{3}$ × area of base × perpendicular height

Work out the volume of the pyramid.

[3 marks]

Answer _____ cm^3