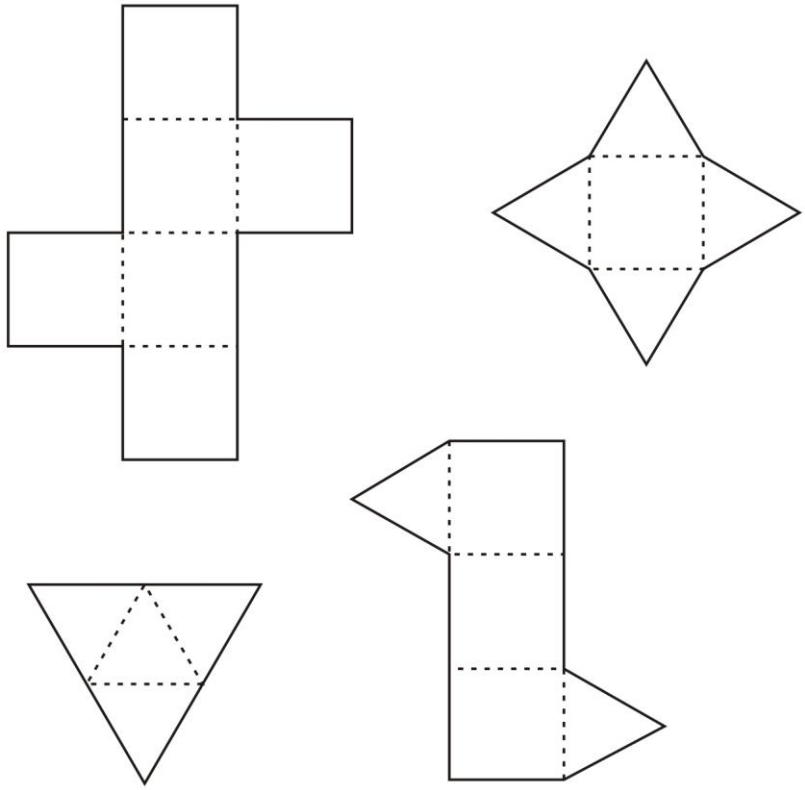
Q1.

Here are some nets of shapes.

For each net, put a tick (✓) if it folds to make a **pyramid**.
Put a cross (✗) if it does not.



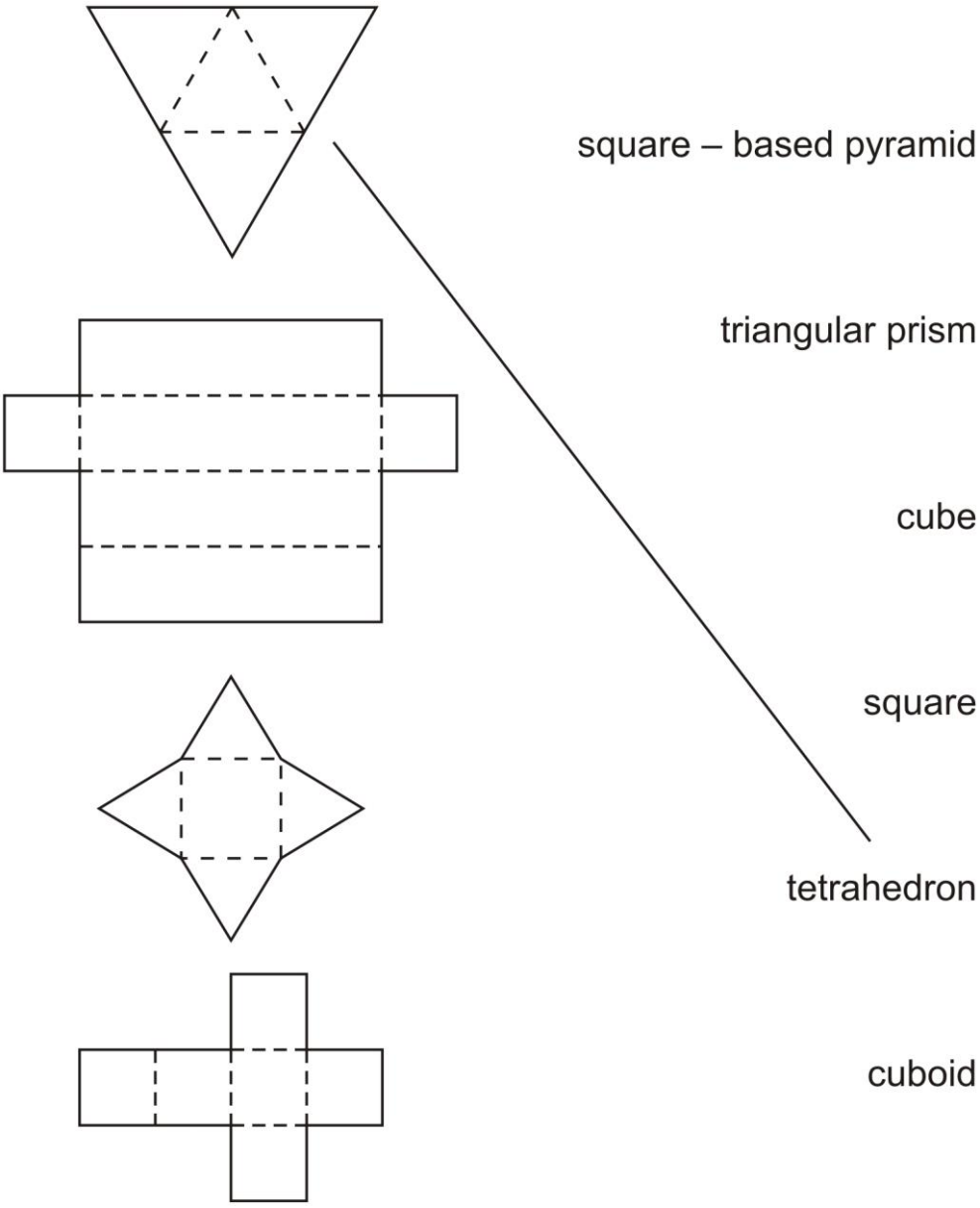
1 mark

Q2.

These nets will fold to make 3-D shapes.

Match each net to the name of its shape.

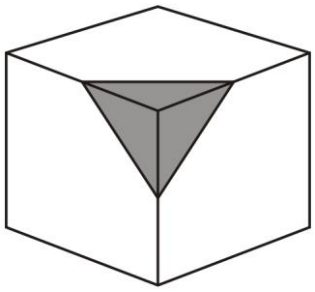
One has been done for you.



1 mark

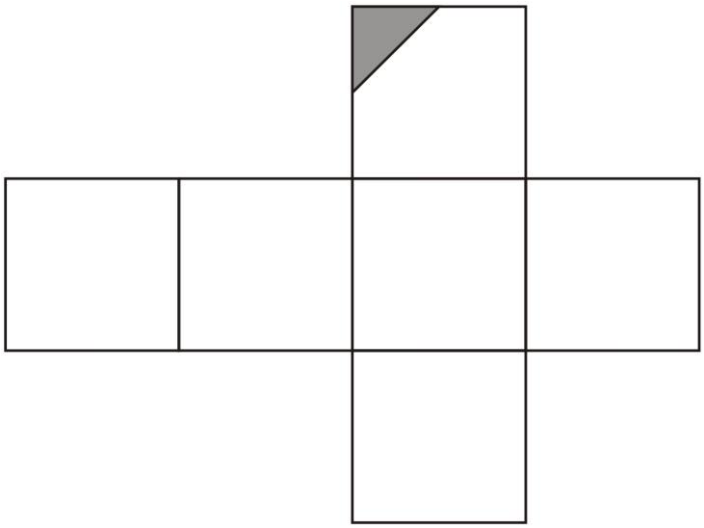
Q3.

A cube has shaded triangles on three of its faces.



Here is the net of the cube.

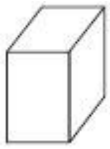
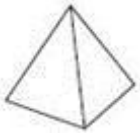
Draw in the two missing shaded triangles.



1 mark

Q4.

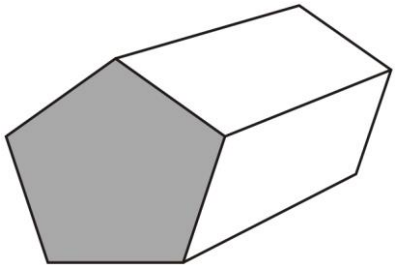
Complete the table.

	number of faces	number of edges
 cuboid	6	12
 square-based pyramid	5	

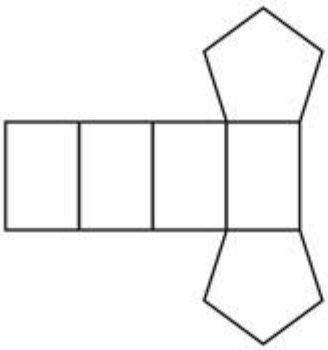
1 mark

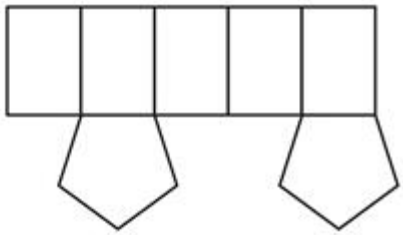
Q5.

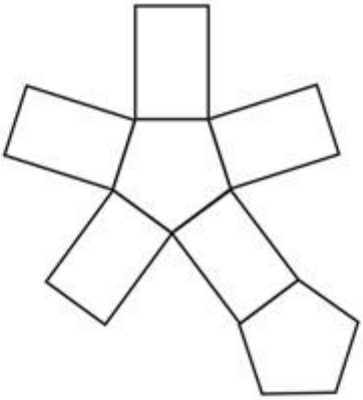
This is a drawing of a pentagonal prism.

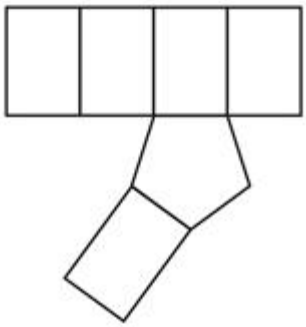


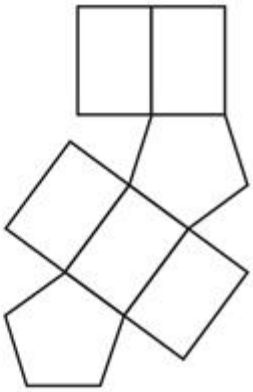
Tick (✓) the one shape that is a net for the pentagonal prism.









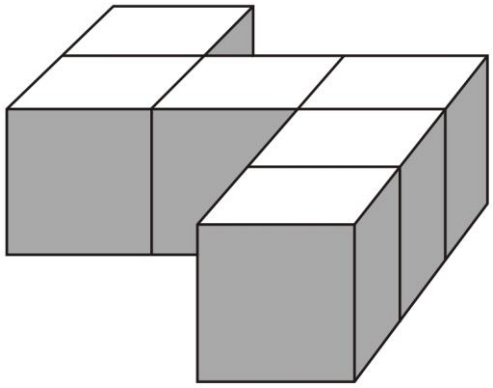


1 mark

Q6.

Emily has 6 cubes.

She sticks them together to make this model.



She paints the sides of the model grey all the way round.

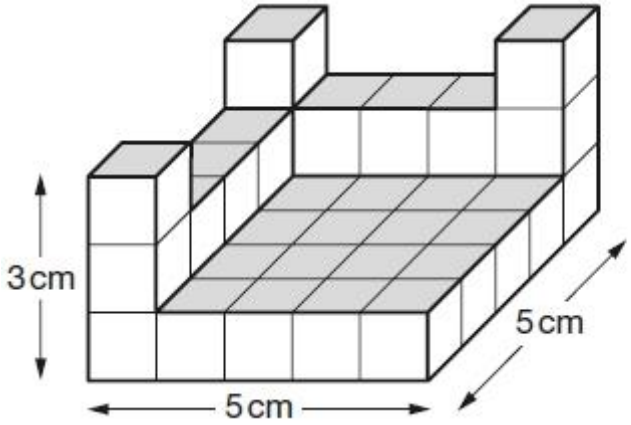
She leaves the top and the bottom of the model white.

How many of the cubes in the model have **exactly two** faces painted grey?

1 mark

Q7.

This shape is made of wooden centimetre cubes.



Not actual size

How many **more** centimetre cubes are needed to make it into a solid cuboid 3 cm tall, 5 cm long and 5 cm wide?

1 mark

Q8.

Jack has two **square-based pyramids** that are the same size.

He sticks the square faces together to make a new 3-D shape.

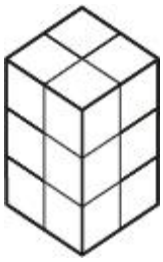
How many **faces** and how many **edges** does his new 3-D shape have?

	faces	and	**edges**

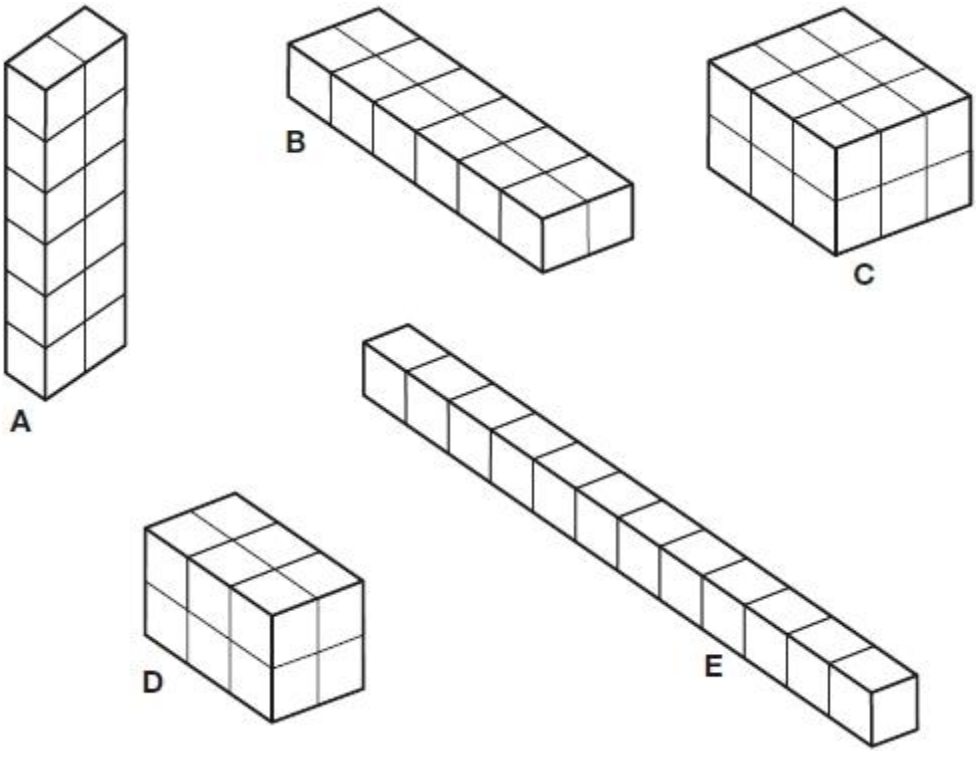
1 mark

Q9.

Emma makes a cuboid using 12 cubes.



Write the letter of the cuboid that has a **different** volume from Emma's cuboid.



_____

1 mark

Q10.

Mina thinks of a 3-D shape.

She says,

'It has 5 faces.
Two opposite faces are triangles.
The other faces are rectangles.'

What is the name of the 3-D shape?

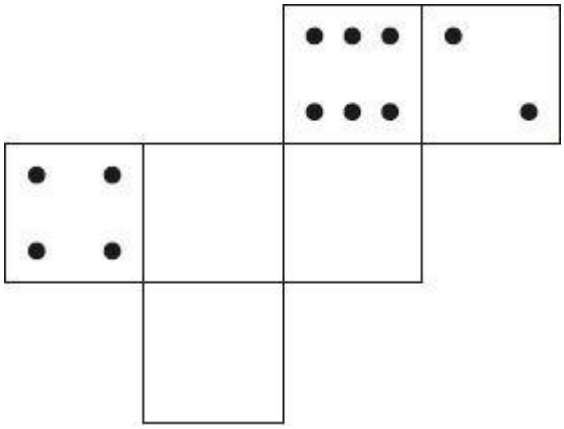
_____

1 mark

Q11.

On a dice, the sum of the dots on opposite faces is always 7

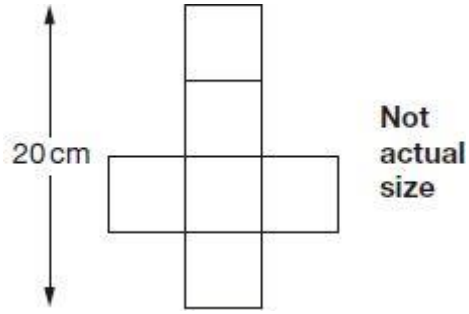
Draw dots on the three empty faces of the net so that it could fold up to make a dice.



1 mark

Q12.

This is the net of a cube.



What is the **volume** of the cube?

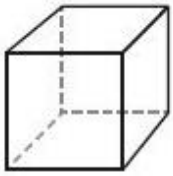
cm^3

1 mark

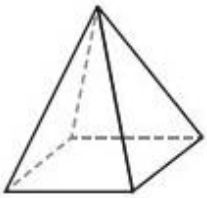
Q13.

Here are diagrams of some 3-D shapes.

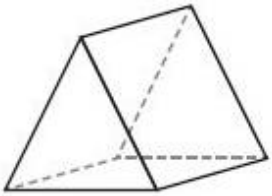
Tick each shape that has the same number of faces as vertices.



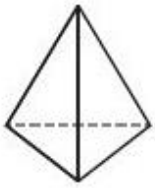
Cube ☐



Square-based pyramid ☐



Triangular prism ☐

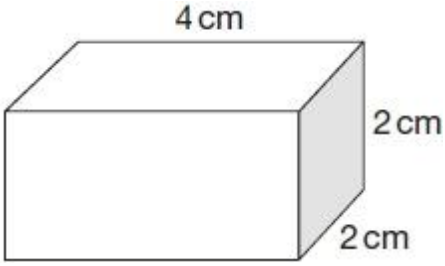


Triangular-based pyramid ☐

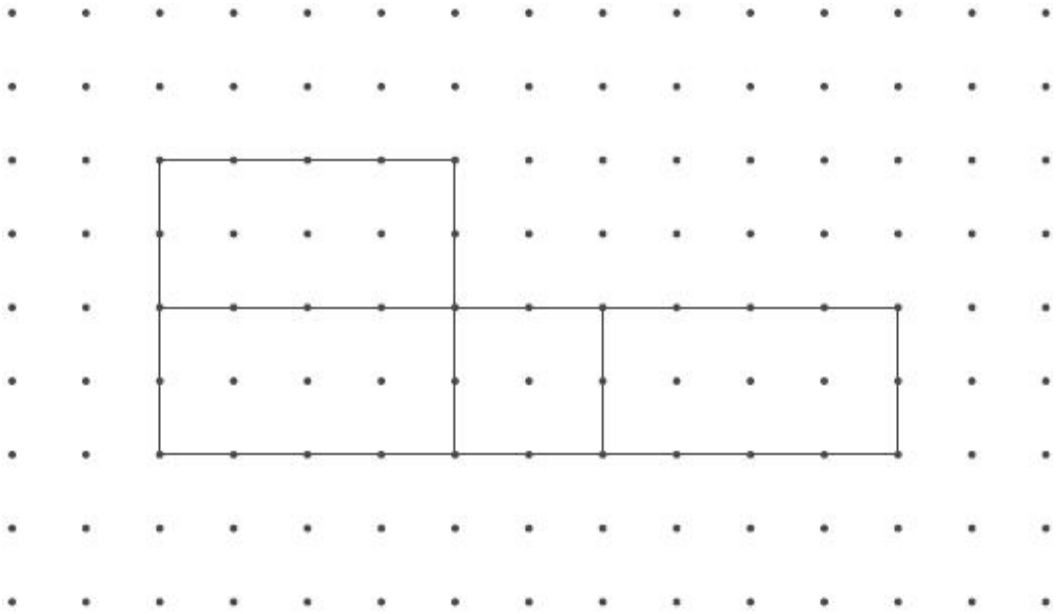
2 marks

Q14.

Look at the cuboid below.



Draw **two** more faces to complete the net of the cuboid.



2 marks

Q15.

This table shows information about four solid shapes.

Complete the table.

One has been done for you.

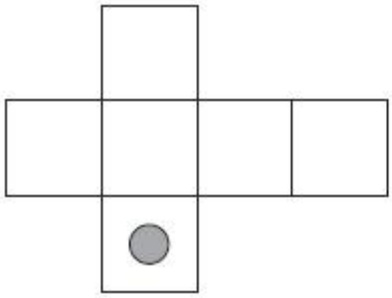
	number of **flat** surfaces	number of **curved** surfaces
sphere	0	1
cone		
cuboid		
cylinder		

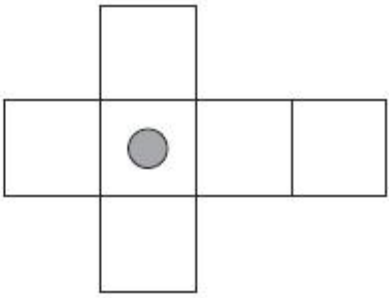
2 marks

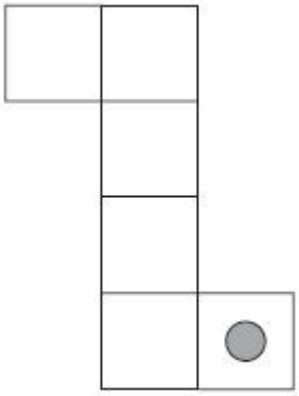
Q16.

Here are three nets of a cube.

On each net draw **one more dot** so that each cube will have dots on **opposite** faces.





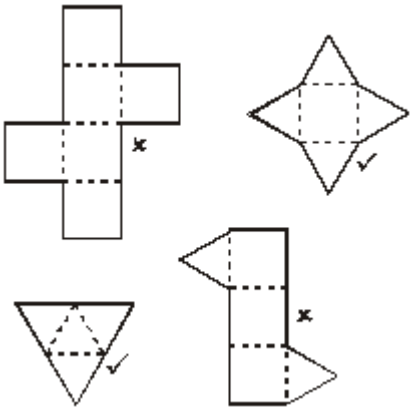


2 marks

Mark schemes

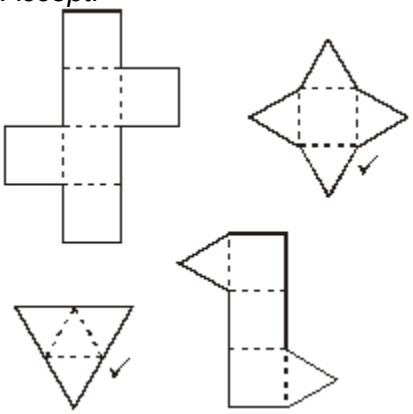
Q1.

Nets ticked and crossed as shown:



Accept alternative unambiguous indications of the correct nets, eg nets circled or crossed out.

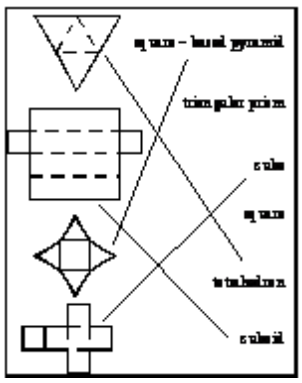
Accept:



[1]

Q2.

1 mark for drawing all arrows as shown.

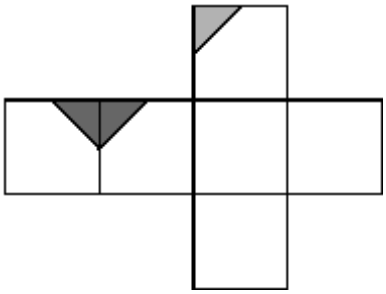


Do not award the mark if the child draws additional lines unless he or she clearly indicates which three are correct.

[1]

Q3.

Diagram marked as shown:



Both triangles must be correctly marked.

Accept slight inaccuracies in drawing, provided the intention is clear.

Triangles need not be shaded.

[1]

Q4.

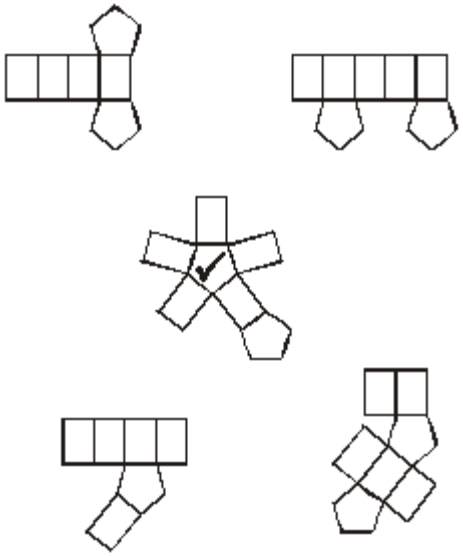
Table completed as shown:

	number of faces	number of edges
 **cuboid**	**6**	**12**
 **square-based pyramid**	**5**	**8**

[1]

Q5.

One net ticked as shown:



Accept alternative unambiguous indications of the correct shape, provided the intention is clear,
eg net circled

[1]

Q6.

4

U1

[1]

Q7.

38

[1]

Q8.

8 faces and 12 edges

[1]

Q9.

C

Accept 18.

[1]

Q10.

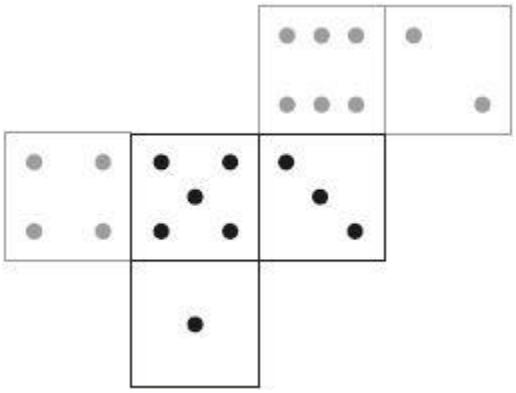
Triangular prism

Accept recognisable misspellings.
Accept prism.

[1]

Q11.

Net completed, as shown:



Accept unconventional arrangements of the dots, provided the intended number is clear and correct.
Accept numbers instead of dots.

[1]

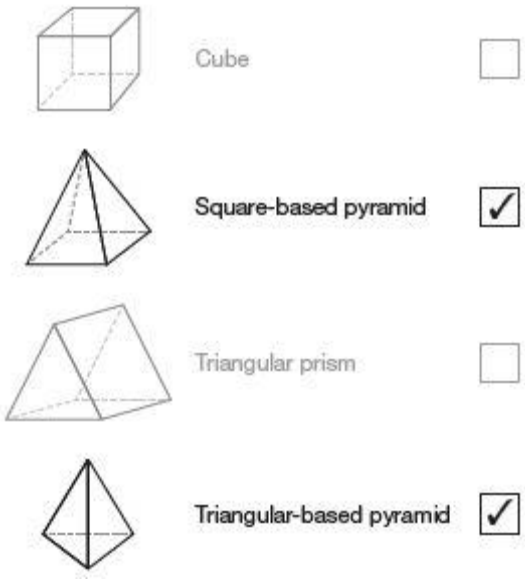
Q12.

125

[1]

Q13.

Award **TWO** marks for both pyramids ticked as shown:



Accept alternative unambiguous positive indications, e.g. Y.

If the answer is incorrect, award **ONE** mark for:

- the two pyramids and not more than one incorrect shape ticked

OR

- only one correct shape ticked and no incorrect shape ticked.

Up to 2m

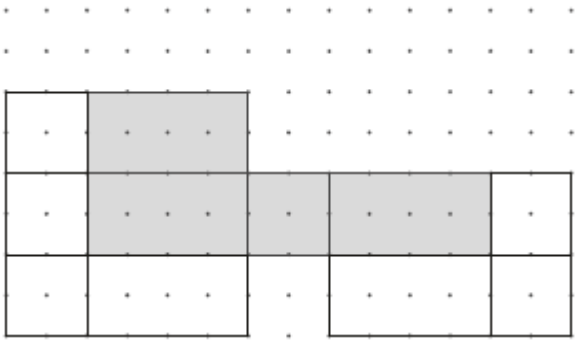
[2]

Q14.

(a) Rectangle (oblong) drawn in one of the correct positions as shown in diagram below:

1

(b) Square drawn in one of the correct positions as shown in the diagram below:



Only accept a square that is joined to the side of an adjacent rectangle (oblong).

1

[2]

Q15.

Award **TWO** marks for table completed correctly as shown:

	number of **flat** surfaces	number of **curved** surfaces
sphere	0	1
cone	**1**	**1**
cuboid	**6**	**0**
cylinder	**2**	**1**

If the answer is incorrect, award **ONE** mark for two out of three rows completed correctly.

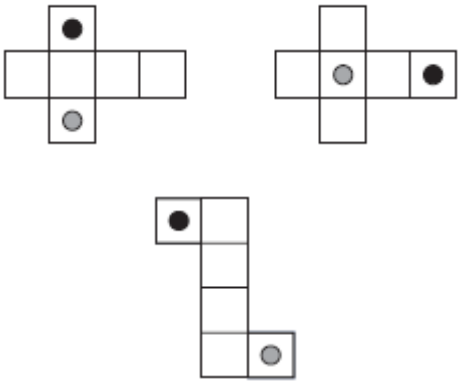
Accept a blank box for '0'.

Up to 2

[2]

Q16.

Award **TWO** marks for three diagrams completed as shown:



Accept alternative unambiguous indications.

If the answer is incorrect, award **ONE** mark for two diagrams correct.

Up to 2
U1

[2]