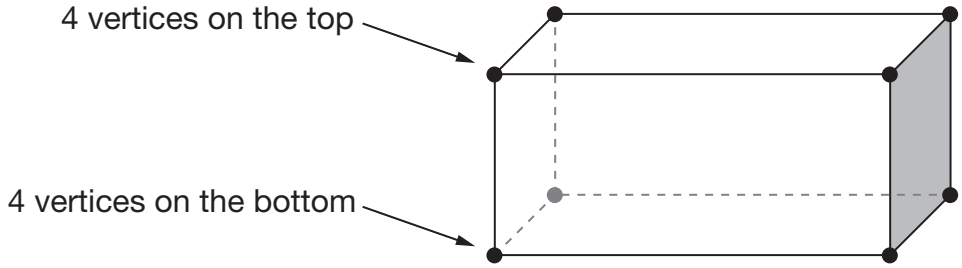
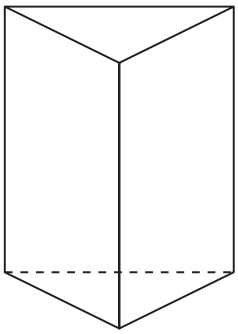
1 [Extra]

A cuboid has **8 vertices**.



How many vertices does this 3-D shape have?



A different 3-D shape has **8 vertices**.

It has **6 faces**. Each face is the **same**.

Put a ring around the correct name for this 3-D shape.

square pyramid cylinder

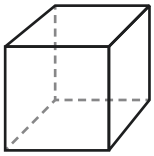
cube rectangle

[1 mark]

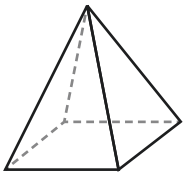
2 Here are diagrams of some 3-D shapes.

[2017]

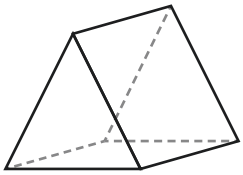
Tick each shape that has the same number of faces as vertices.



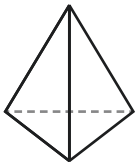
Cube ☐



Square-based pyramid ☐



Triangular prism ☐



Triangular-based pyramid ☐

[2 marks]

3 This table shows information about four solid shapes.

[2005]

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]

4 [2012]

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?

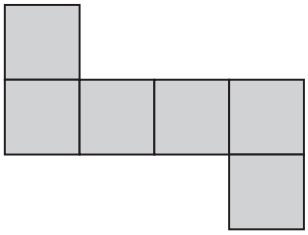
_____

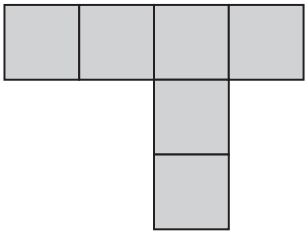
[1 mark]

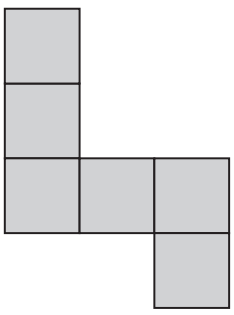
5 [2005]

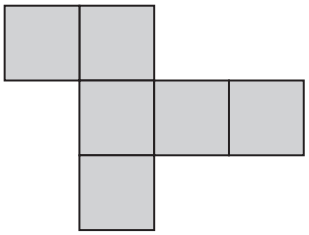
Here are four diagrams.

On each one put a tick (✓) if it is a net of a cube.
Put a cross (✗) if it is not.







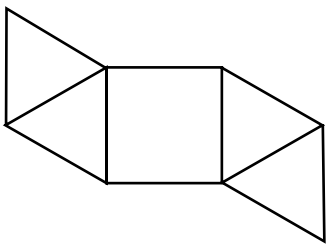


[2 marks]

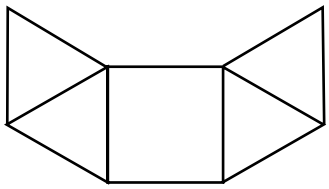
6 [2000]

Look at each of these diagrams.

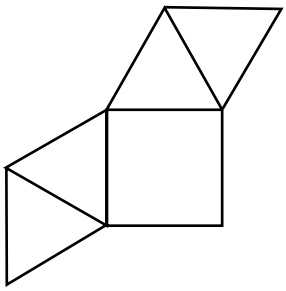
Put a tick (✓) if it is the **net of a square based pyramid**.
Put a cross (✘) if it is **not**.



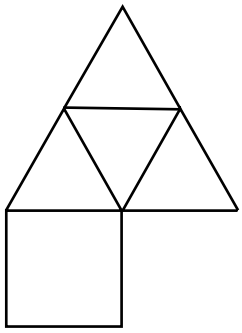
. . . . . .



. . . . . .



. . . . . .



. . . . . .

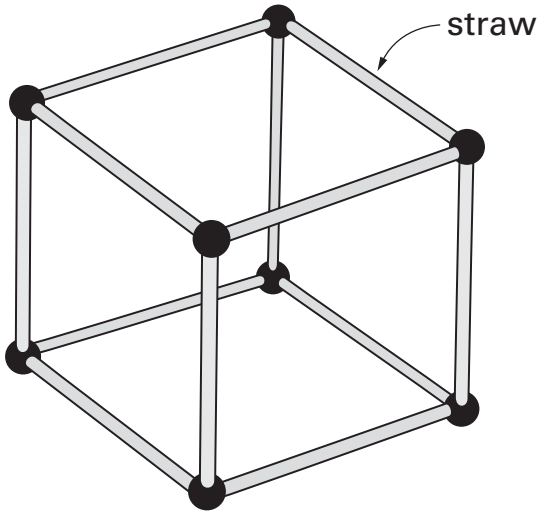
[2 marks]

7 [Extra]

Anna makes a cube using straws.

First she joins 4 straws
to make a square.

Then she joins more straws
to make a cube.

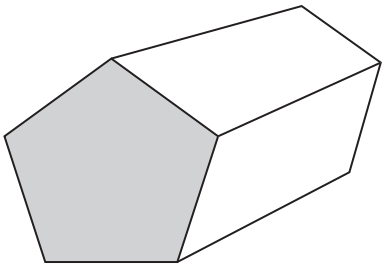


Altogether, how many straws does she use?

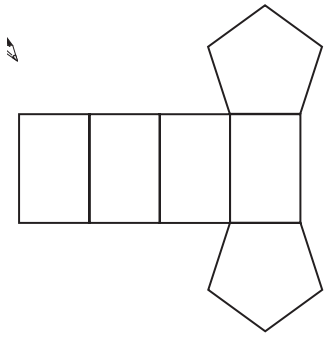
[1 mark]

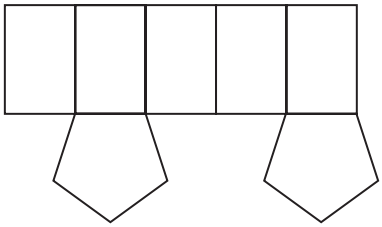
8 This is a drawing of a pentagonal prism.

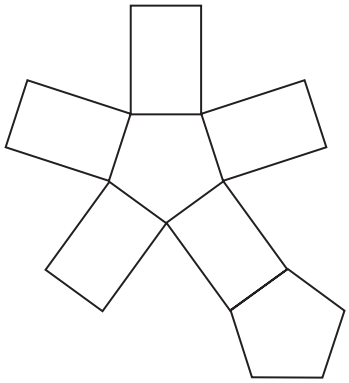
[2004]

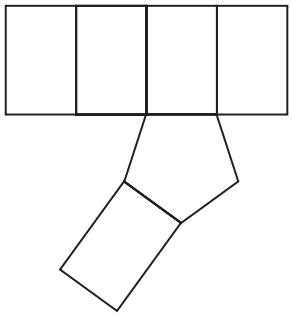


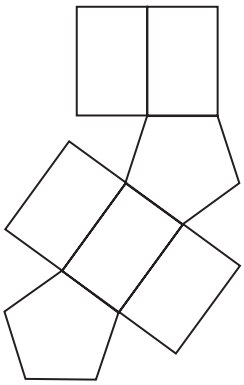
Tick (✓) the one shape that is a net for the pentagonal prism.







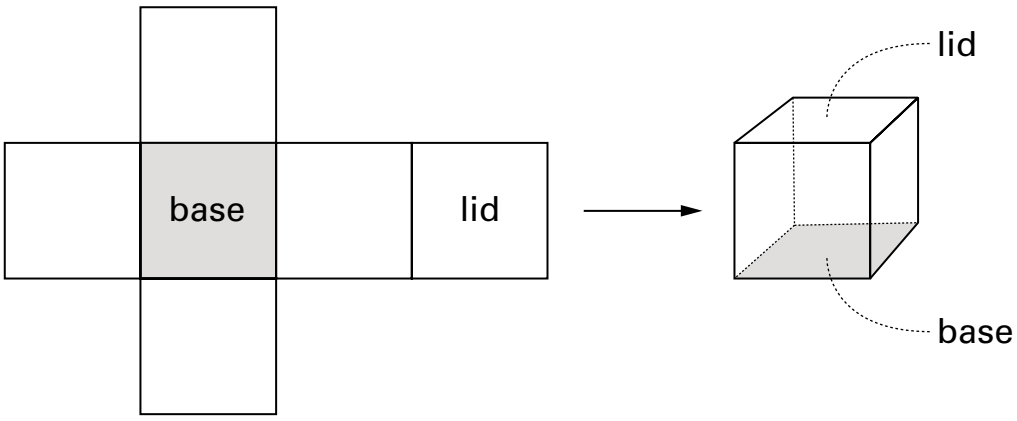




[1 mark]

9 The diagram shows a net that folds to make a box.

[Extra]

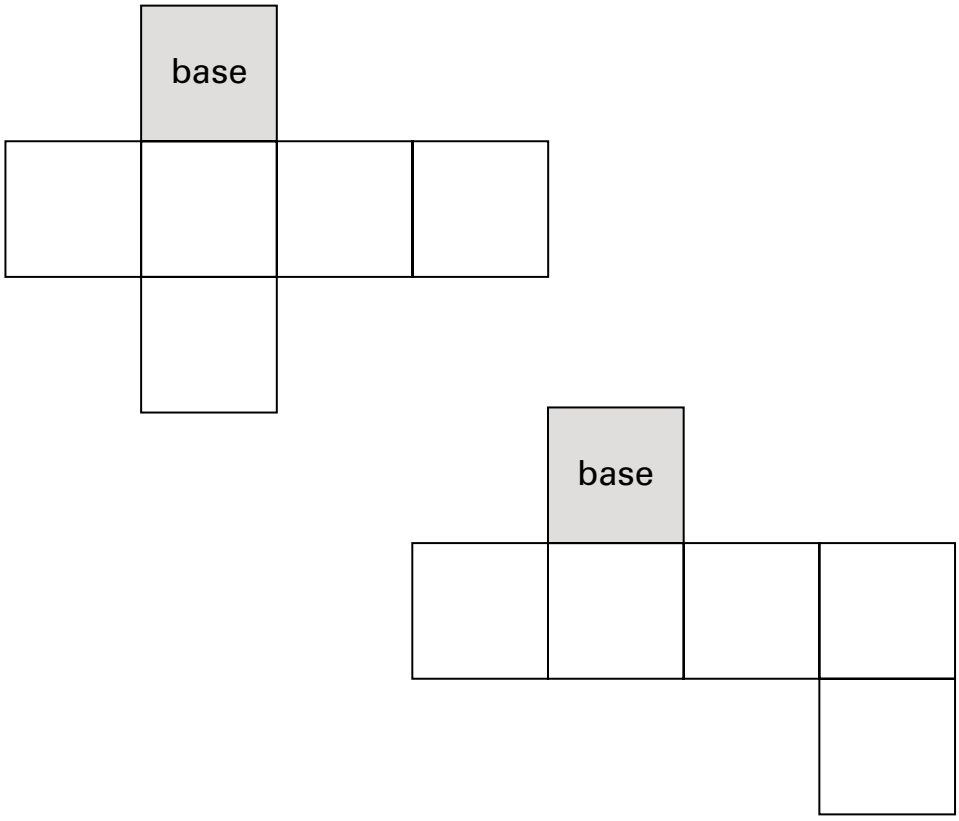


There are two different nets shown below.

Each net folds to make a box.

The base of each box is labelled.

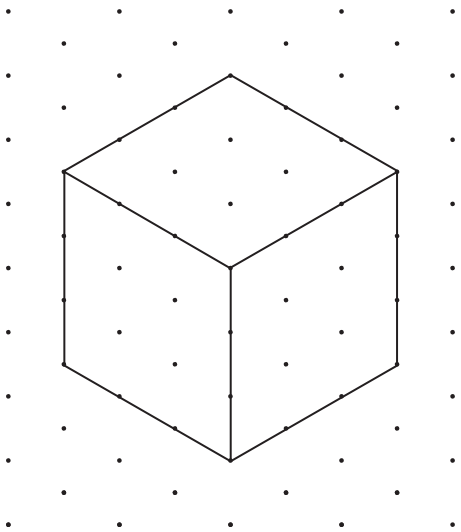
For each box, **label** the face that will be the **lid**.



[1 mark]

10 Here is a diagram of a cube.

[Extra]



Isometric grid

Fill in the missing numbers.

The first one is done for you.

The diagram shows ..... 3 ..... faces,

but a cube has ..... faces altogether.

The diagram shows ..... edges,

but a cube has ..... edges altogether.

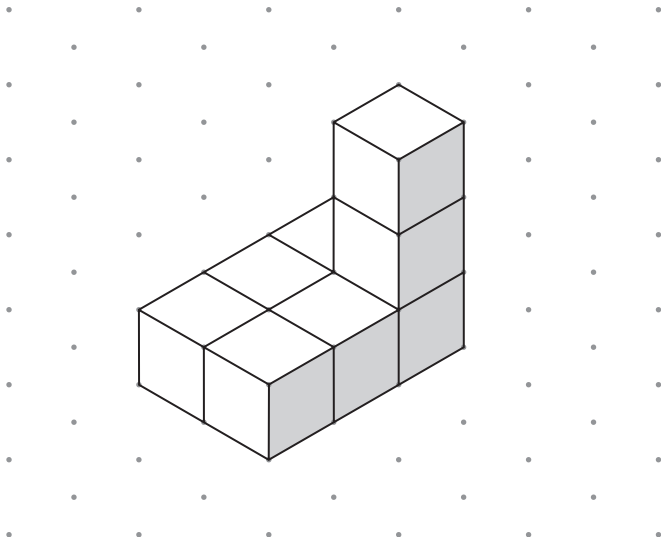
The diagram shows ..... vertices,

but a cube has ..... vertices altogether.

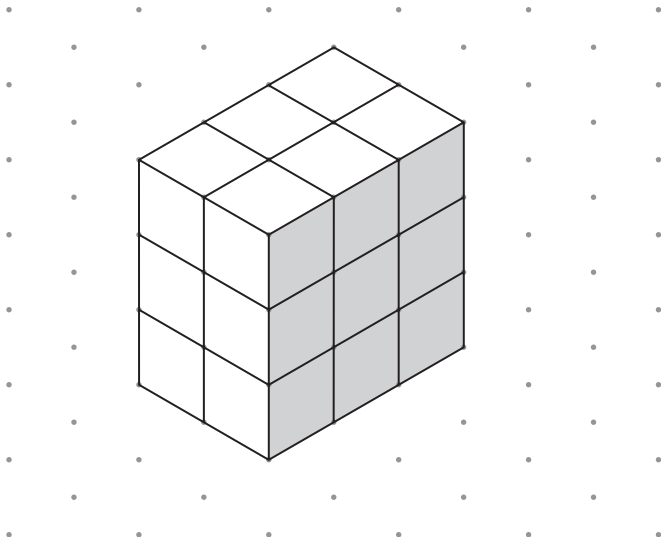
[1 mark]

11 Sam uses 8 cubes to make this shape.

[Extra]



He adds more cubes to make this cuboid.



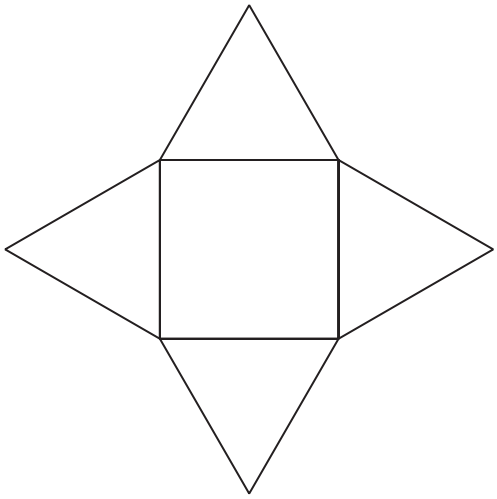
How many **more** cubes does he add to make this cuboid?

_____

[1 mark]

12 [Extra]

Here is a net of a 3-D shape.



When the net is folded, what 3-D shape will it make?
Tick (✓) the correct answer below.

Cube

Prism

Square-based pyramid

Triangular-based pyramid

Cuboid

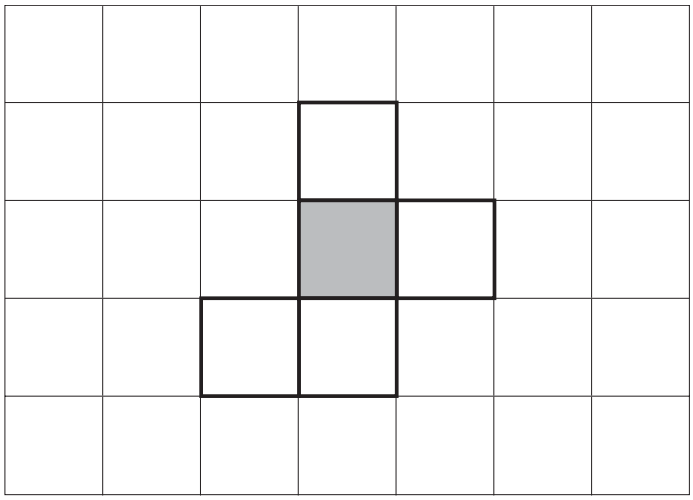
[1 mark]

13 [2003]

Here is the net of a cube with no top.

The shaded square shows the bottom of the cube.

Draw an extra square to make the net of a cube which does have a top.

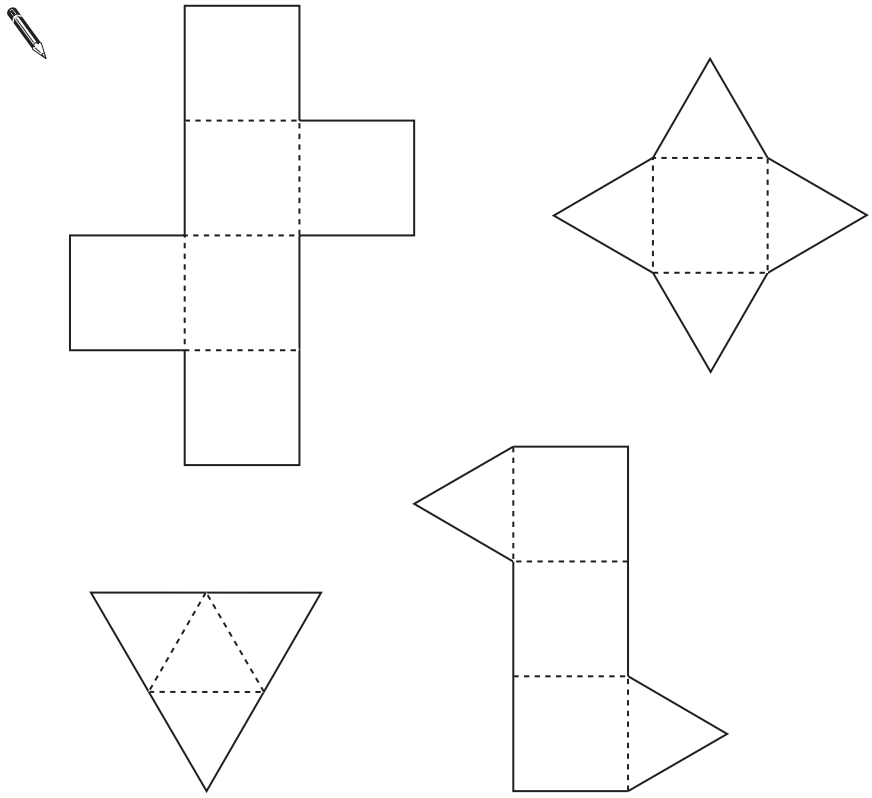


[1 mark]

14 Here are some nets of shapes.

[2008]

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



[2 marks]

15 The table shows information about three solid shapes.

[New]

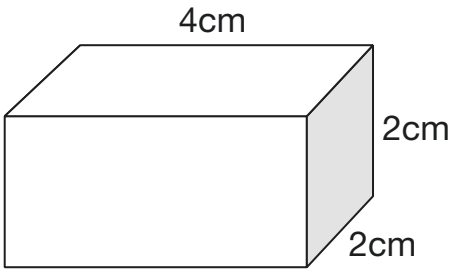
Complete the table.

	number of **faces**	number of **vertices**
cube	6	
triangular prism		
square-based pyramid		

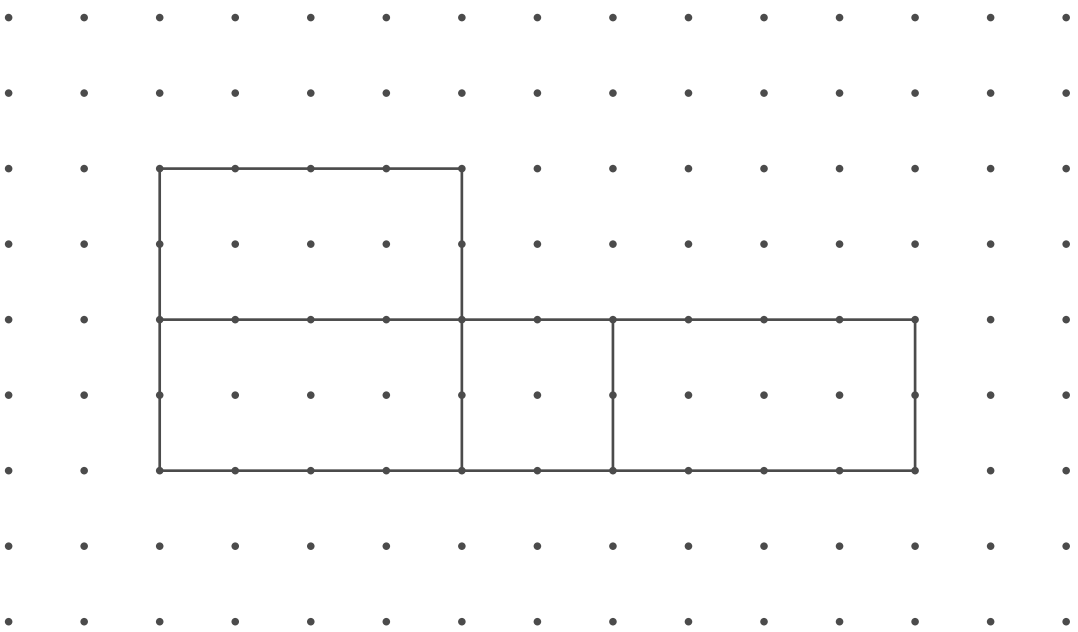
[2 marks]

16 Look at the cuboid below.

[2015]



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

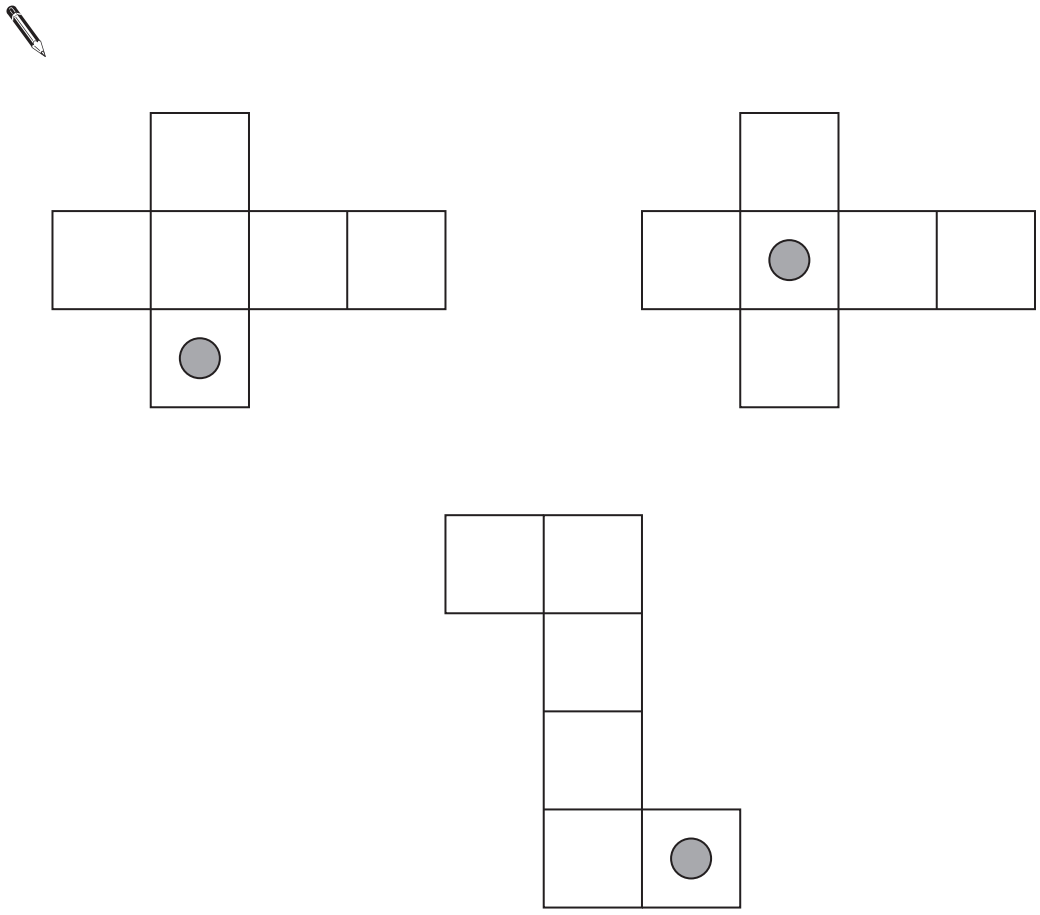


[2 marks]

17 Here are three nets of a cube.

[2013]

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



[2 marks]

18 The table shows information about three solid shapes.

[New]

Complete the table.

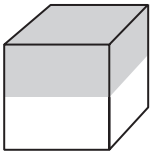
	number of **edges**	number of **vertices**
cuboid	12	
triangular prism		
triangle-based pyramid		

[2 marks]

19 Here is a cube.

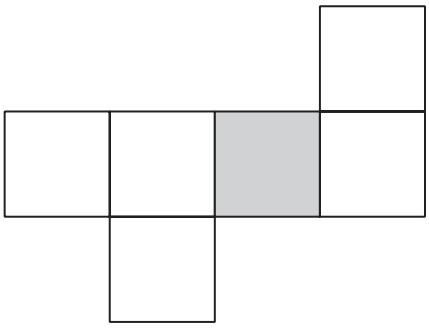
[2006]

The cube is shaded all the way round so that the top half is grey and the bottom half is white.



Here is the net of the cube.

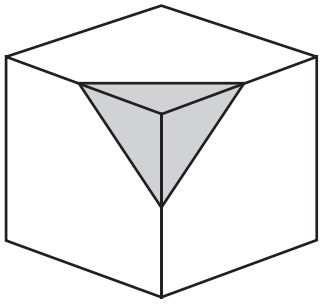
Complete the shading.



[1 mark]

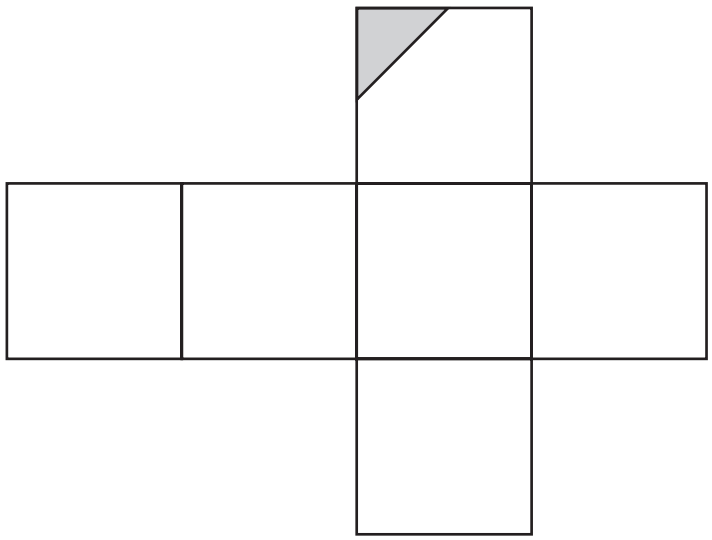
20 A cube has shaded triangles on three of its faces.

[2002]



Here is the net of the cube.

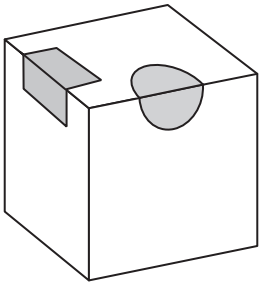
Draw in the two missing shaded triangles.



[1 mark]

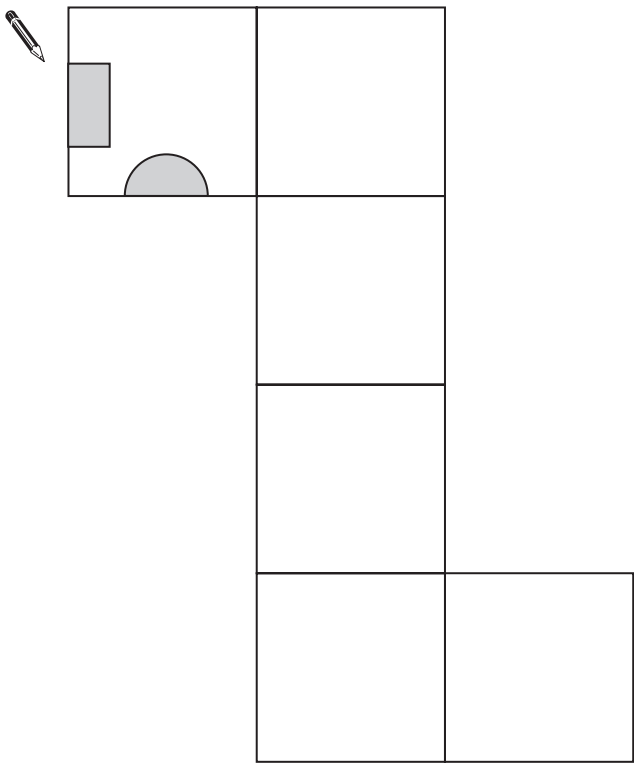
21 A cube has shaded shapes on three of its faces.

[2007]



Here is a net of the cube.

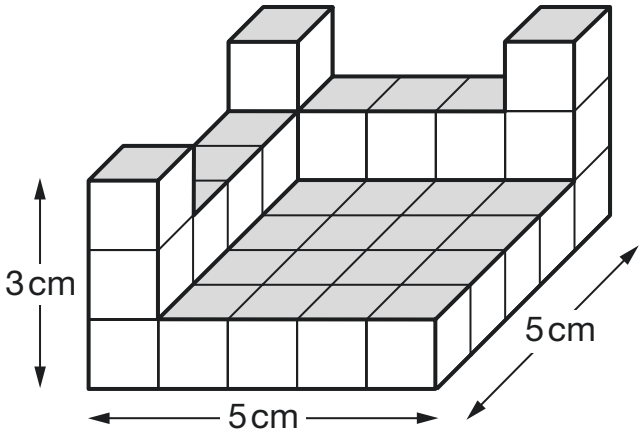
Draw in the two missing shaded shapes.



[1 mark]

22 This shape is made of wooden centimetre cubes.

[2015]



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]