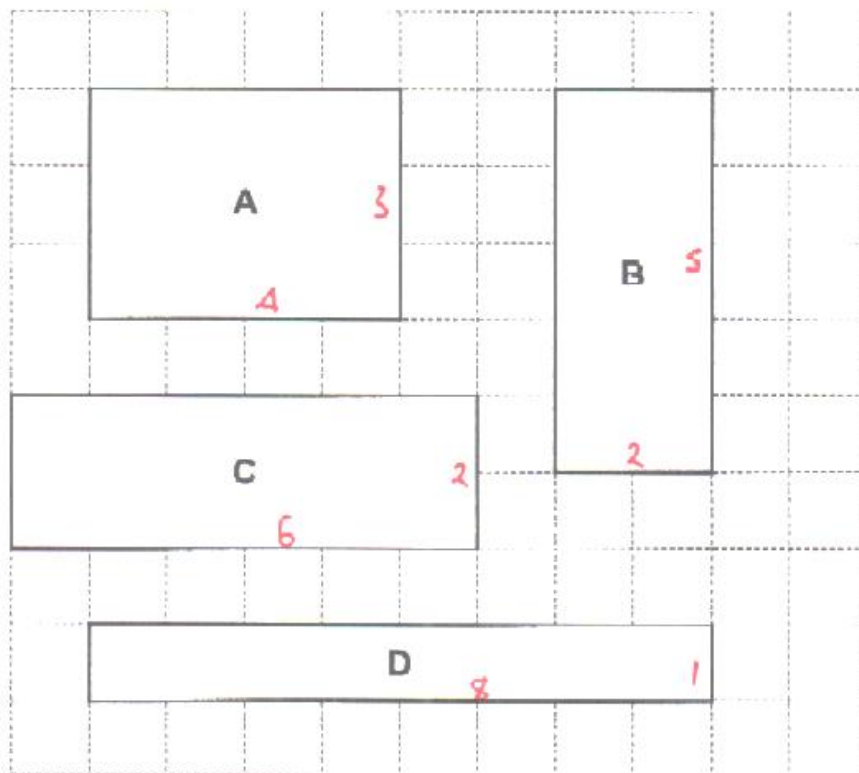


Angles and Shape– 2024 Checkpoint Primary Math**1. 2024/Paper 1_stage 5/No.9**

Here are four rectangles drawn on a grid of squares.



(a) Two of the rectangles have the same **perimeter**.

Write the letters of these two rectangles

$$\text{Perimeter of A} = 2 \times 4 + 2 \times 3 = 8 + 6 = 14$$

$$\text{Perimeter of B} = 2 \times 2 + 2 \times 5 = 4 + 10 = 14$$

$$\text{Perimeter of C} = 2 \times 6 + 2 \times 2 = 12 + 4 = 16$$

$$\text{Perimeter of D} = 2 \times 8 + 2 \times 1 = 16 + 2 = 18$$

A and B [1]

(b) Two of the rectangles have the same **area**.

Write the letters of these two rectangles.

$$\text{Area of A} = 4 \times 3 = 12$$

$$\text{Area of B} = 2 \times 5 = 10$$

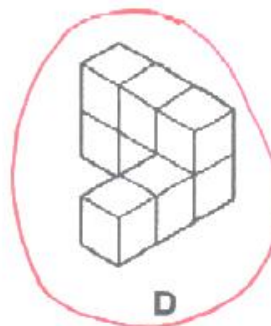
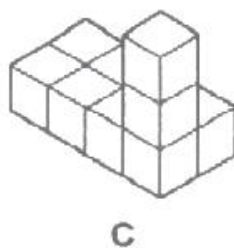
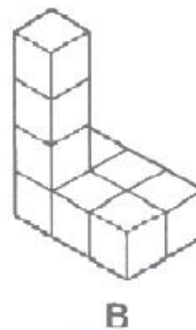
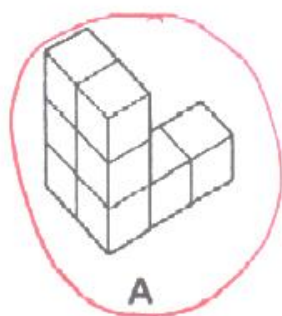
$$\text{Area of C} = 6 \times 2 = 12$$

$$\text{Area of D} = 8 \times 1 = 8$$

A and C [1]

2. 2024/Paper 1_stage 5/No.25

Here are drawings of some 3D models made with cubes.

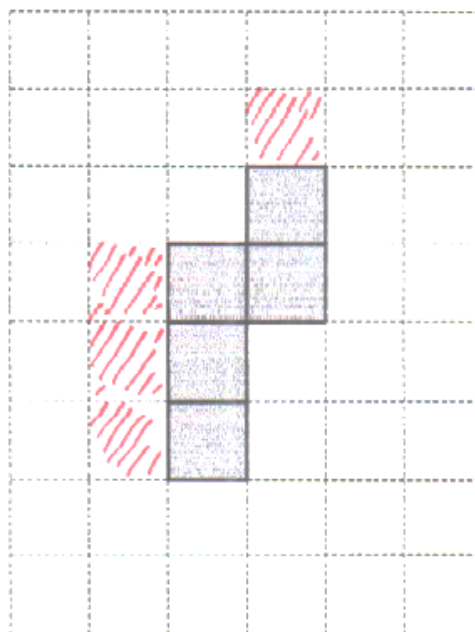


Draw a ring around the **two** models that are the same shape.

[1]

3. 2024/Paper 1_stage 5/No.33

Here is the net of an open cube drawn on squared paper.



Angelique wants to add one extra square to make the net of a closed cube.

Shade **three different** squares Angelique could choose.

[1]

4. 2024/Paper 2_stage 5/No.6

Two angles are joined to make a straight line.



Not drawn to scale

Calculate the value of angle a.

Angles in a straight line add up to 180°

$$a + 35^\circ = 180^\circ$$

$$a = 180^\circ - 35^\circ$$

$$= 145^\circ$$

$$\begin{array}{r} 180 \\ - 35 \\ \hline 145 \end{array}$$

..... 145° [1]

5. 2024/Paper 2_stage 5/No.10

Here are the names of four types of angles.

right
 $= 90^\circ$

reflex
greater than 180°
but less than 360°

obtuse
greater than 90°
but less than 180°

acute
less than 90°

Write these types of angles in order of size, starting with the smallest.

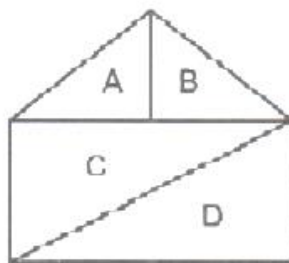
..... acute right obtuse reflex
smallest largest

[1]

6. 2024/Paper 2_stage 5/No.11

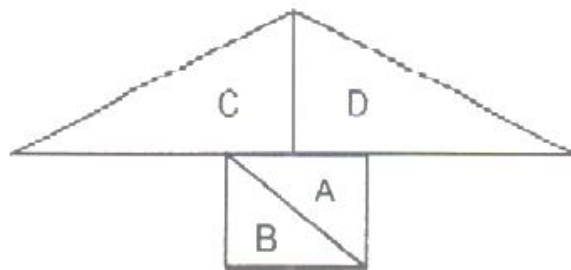
Chen has a shape with an area of 20 cm^2 .

The shape is made of four triangles.



Not drawn to scale

He arranges the four triangles to make a new shape.



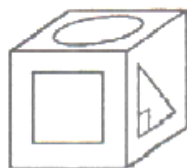
Not drawn to scale

Write the area of the new shape.

Area of the new shape = Area of the old shape = 20 cm^2 20 cm^2 [1]

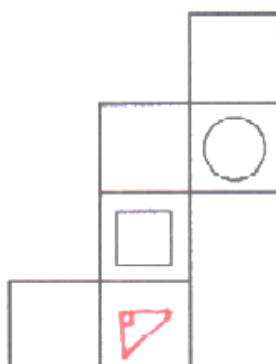
7. 2024/Paper 2_stage 5/No.17

Here is a drawing of a cube.



There is a shape on three of the faces of the cube.

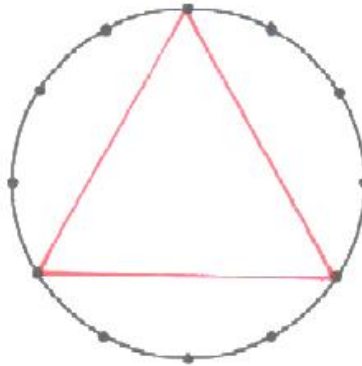
Draw the triangle in the correct position on the net of the cube.



[1]

8. 2024/Paper 2_stage 5/No.24

(a) Here is a circle with 12 equally spaced points marked.

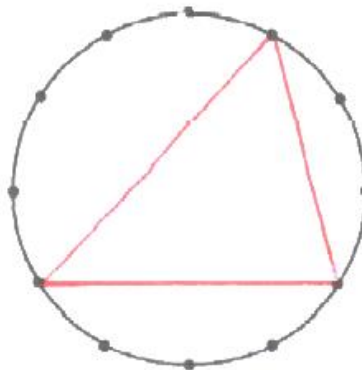


Draw an equilateral triangle by joining 3 of the points.

[1]

Equilateral triangle has equal sides

(b) Here is a different circle with 12 equally spaced points marked.



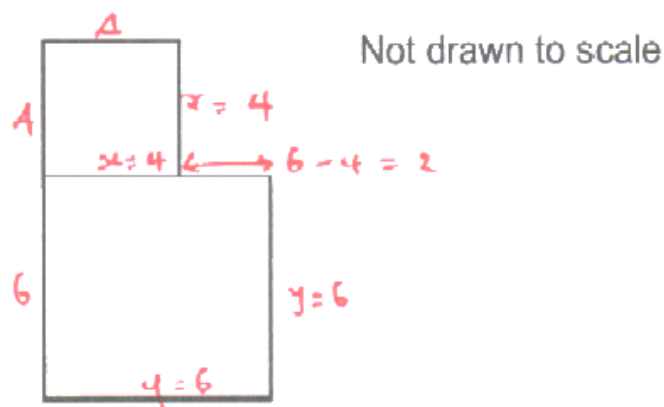
Draw a scalene triangle by joining 3 of the points.

[1]

A scalene triangle has 3 unequal sides

9. 2024/Paper 2_stage 5/No.27

Oliver has two square tiles.
 The tiles are different in size.
 The length of each tile is a whole number.
 He makes a shape using his tiles.



The area of his shape is 52cm^2 .

Calculate the perimeter of his shape.

Let x be the side length of the small square
 Let y be the side length of the large square

$$x^2 + y^2 = 52, \text{ where } x < y$$

$$16 + 36 = 52, \text{ so } x = 4, y = 6$$

$$\text{Perimeter} = 6 + 6 + 6 + 2 + 4 + 4 + 4$$

$$= 32\text{cm}$$

..... 32 cm [2]