

1. The diagram shows a regular 5-sided polygon, with centre  $O$ .

Nov 07 3H

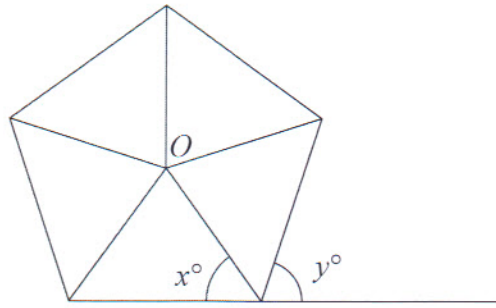


Diagram **NOT** accurately drawn

Work out the value of

(a)  $x$ ,

$x = \dots\dots\dots$   
(3)

(b)  $y$ .

$y = \dots\dots\dots$   
(2)

(Total 5 marks)

Q1

3. (a) The diagram shows a regular octagon, with centre  $O$ .

NDJ 09 31

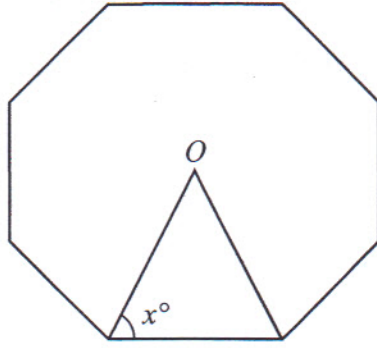


Diagram NOT accurately drawn

Work out the value of  $x$ .

$x = \dots\dots\dots$   
(3)

(b) A regular polygon has an exterior angle of  $30^\circ$ .  
Work out the number of sides of the polygon.

$\dots\dots\dots$   
(2)

(Total 5 marks)

Q3

May 05 3H

13. The size of each exterior angle of a regular polygon is  $18^\circ$ .

(a) Work out how many sides the polygon has.

.....  
(2)

(b) Work out the **sum** of the interior angles of the polygon.

.....  
(2)

(Total 4 marks)

Q13

15.

Nov 06 4H

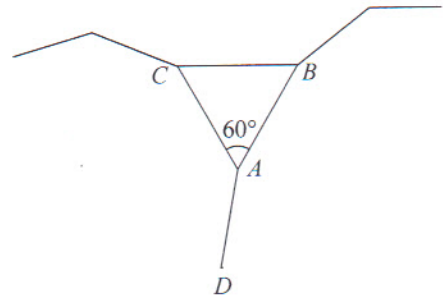


Diagram NOT accurately drawn

The sides of an equilateral triangle  $ABC$  and two **regular** polygons meet at the point  $A$ .  
 $AB$  and  $AD$  are adjacent sides of a regular 10-sided polygon.  
 $AC$  and  $AD$  are adjacent sides of a regular  $n$ -sided polygon.

Work out the value of  $n$ .

$n =$  .....

(Total 5 marks)

Q15

13.

May 08 31

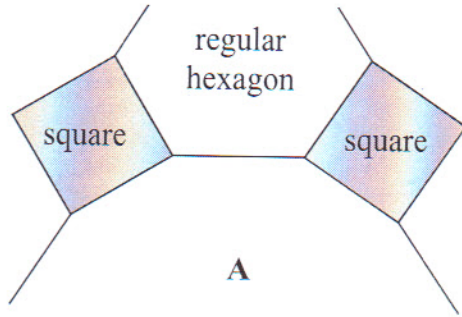


Diagram NOT accurately drawn

The diagram shows part of a tiling pattern.  
 The tiling pattern is made from three shapes.  
 Two of the shapes are squares and regular hexagons.  
 The third shape is a regular  $n$ -sided polygon **A**.

Work out the value of  $n$ .

$n = \dots\dots\dots$

Q13

(Total 5 marks)