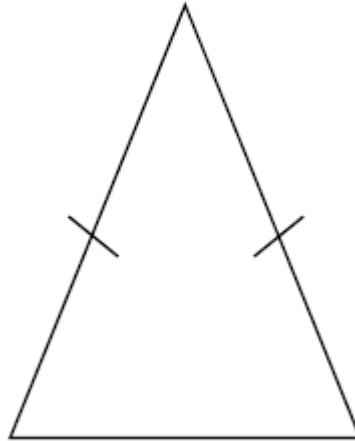


**Q1.**

This triangle is drawn accurately.



What type of triangle is it?

Tick **two** boxes.

- |               |                          |
|---------------|--------------------------|
| acute-angled  | <input type="checkbox"/> |
| obtuse-angled | <input type="checkbox"/> |
| equilateral   | <input type="checkbox"/> |
| isosceles     | <input type="checkbox"/> |
| scalene       | <input type="checkbox"/> |

**(Total 1 mark)****Q2.**

A company's logo

- is a pentagon
- has exactly one line of symmetry
- has sides with whole number lengths

- has a perimeter of 15 cm

Draw a sketch of a possible logo.

Label each side with its length.

**(Total 2 marks)**

**Q3.**

- (a) The length of one side of a triangle is 10 cm

Not drawn accurately



Tick the correct box for this statement.

The perimeter of the triangle is between 10 cm and 20 cm

Always true

Sometimes true

Never true

**(1)**

- (b) The length of one of the diagonals of a parallelogram is 10 cm

Not drawn accurately



Tick the correct box for this statement.

The perimeter of the parallelogram is greater than 20 cm



Always true



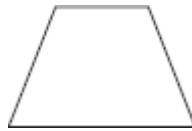
Sometimes true



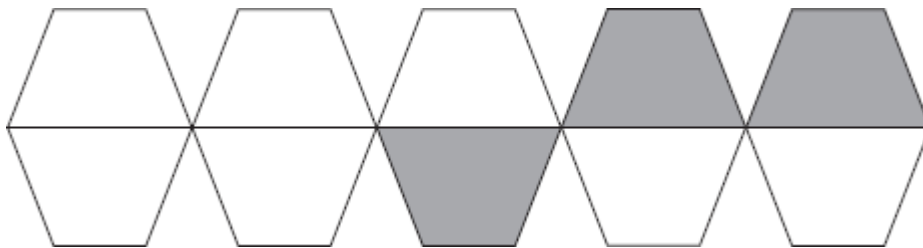
Never true

(1)  
(Total 2 marks)

**Q4.** This shape is an isosceles trapezium.



Ten of these shapes are put together.



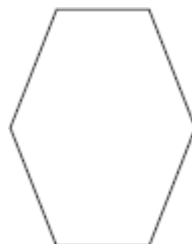
(a) What percentage of the ten shapes is shaded?

Answer .....%

(1)

(b) What is the mathematical name of the shape below?

Circle your answer



Octagon

Pentagon

Hexagon

Decagon

(1)  
(Total 2 marks)

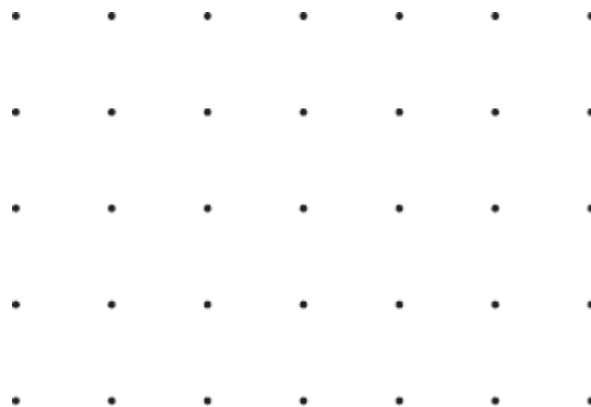
**Q5.**

(a) On this grid, draw a trapezium with **one** line of symmetry.



(1)

(b) On this grid, draw a trapezium with only **one** acute angle.



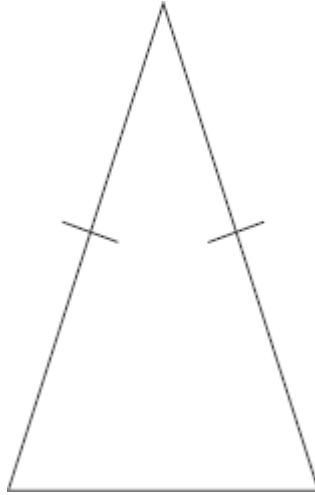
(1)  
(Total 2 marks)

**Q6.**

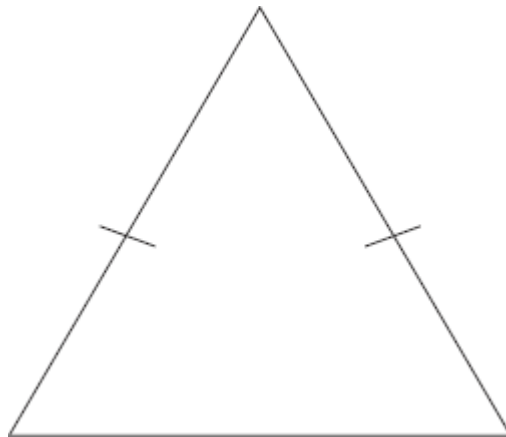
An angle in an isosceles triangle is  $74^\circ$

Fill in three angles on each triangle below to show the **two** possible isosceles triangles.

Not drawn accurately



Not drawn accurately





**(Total 3 marks)**

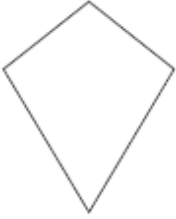
**Q7.**

Tick (✓) or cross (X) the properties of the quadrilaterals shown.  
The square has been done as an example.

Property				
Diagonals cross at	One pair of equal	All sides equal	Exactly one line of	Rotational symmetry

	right angles	opposite angles		symmetry	of order 2
<b>Square</b> 	✓	X	✓	X	X

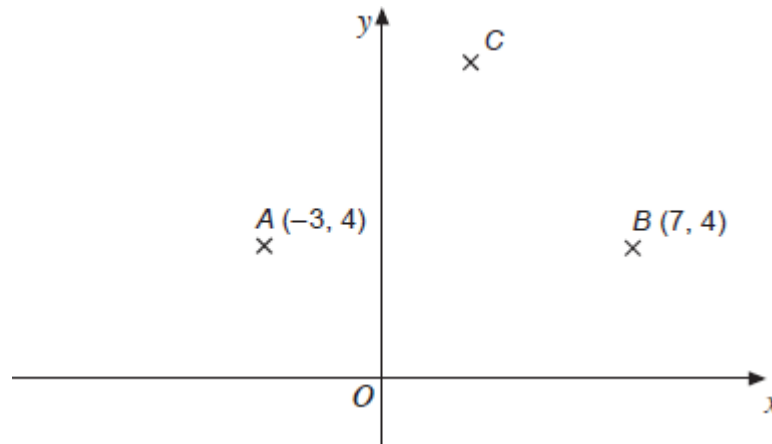
<b>Rhombus</b> 					
---	--	--	--	--	--

<b>Kite</b> 					
--	--	--	--	--	--

(Total 4 marks)

**Q8.** Points *A*, *B* and *C* are plotted.

Not drawn accurately



They form an **isosceles** triangle such that  $AC = BC$   
 A is  $(-3, 4)$  and B is  $(7, 4)$ .  
 The area of triangle  $ABC$  is 20 square units.

Work out the coordinates of C.  
 You **must** show your working, some of which may be on the diagram.

.....

.....

.....

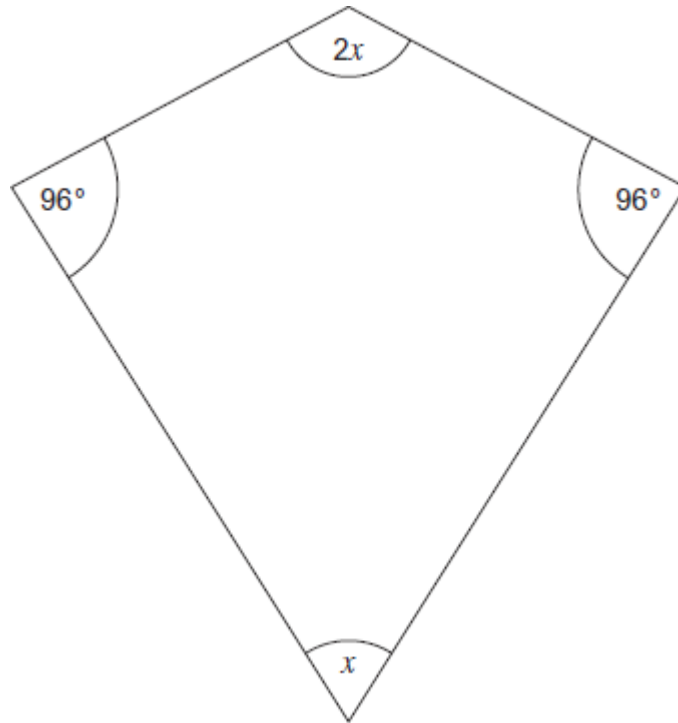
.....

Answer ( ..... , ..... )

**(Total 4 marks)**

**Q9.** Here is a metal badge in the shape of a kite.

Not drawn accurately



- (a) Set up and solve an equation to work out the value of  $x$ .

.....

.....

.....

.....

.....

.....

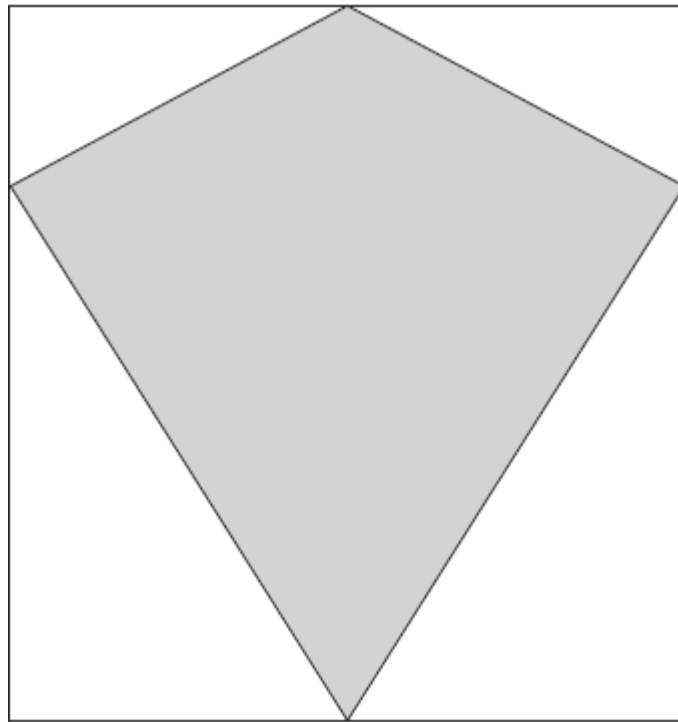
$x =$  .....

(3)

- (b) The badge is cut from a rectangular sheet of metal as shown.

Not drawn accurately





Cathy says,

“The area of the badge is **exactly** half the area of the rectangle.”

Give reasons why she is correct.  
You may use the diagram to help you.

.....

.....

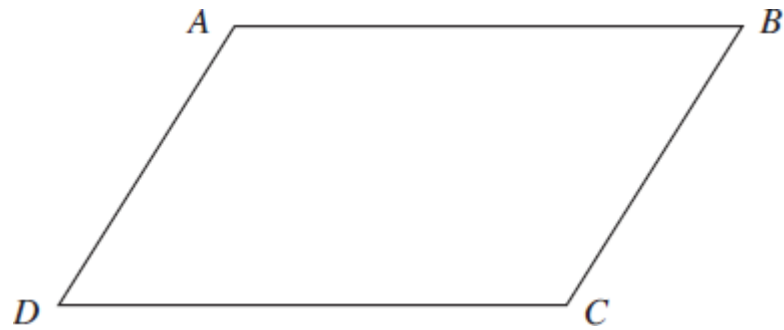
.....

.....

.....

(2)  
(Total 5 marks)

**Q10.** Here is a parallelogram.

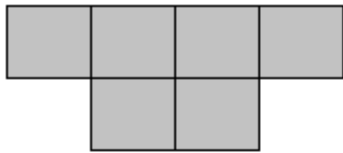


Tick a box to show whether each statement is true or false.

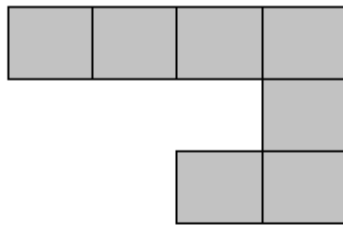
	True	False
$AB$ is parallel to $DC$	<input type="checkbox"/>	<input type="checkbox"/>
Angle $A =$ Angle $C$	<input type="checkbox"/>	<input type="checkbox"/>
The parallelogram has 2 lines of symmetry.	<input type="checkbox"/>	<input type="checkbox"/>
The parallelogram has rotational symmetry of order 2.	<input type="checkbox"/>	<input type="checkbox"/>

(Total 3 marks)

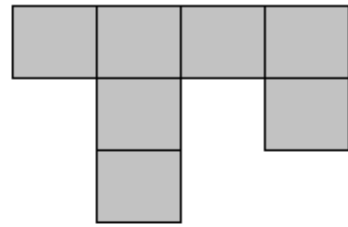
**Q11.** Six shapes are made from centimetre squares.



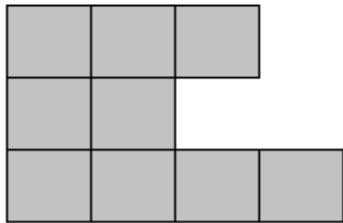
A



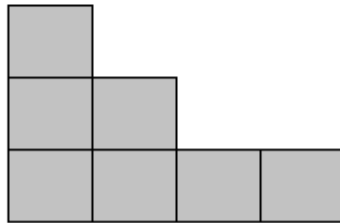
B



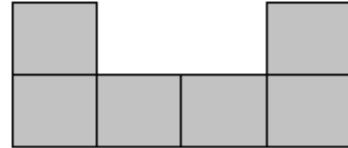
C



D



E



F

(a) Complete the following sentences.

Shape A and Shape ..... fit together to make a rectangle.

Shape B and Shape D fit together to make a .....

(2)

(b) Work out the area of Shape D.  
State the units of your answer.

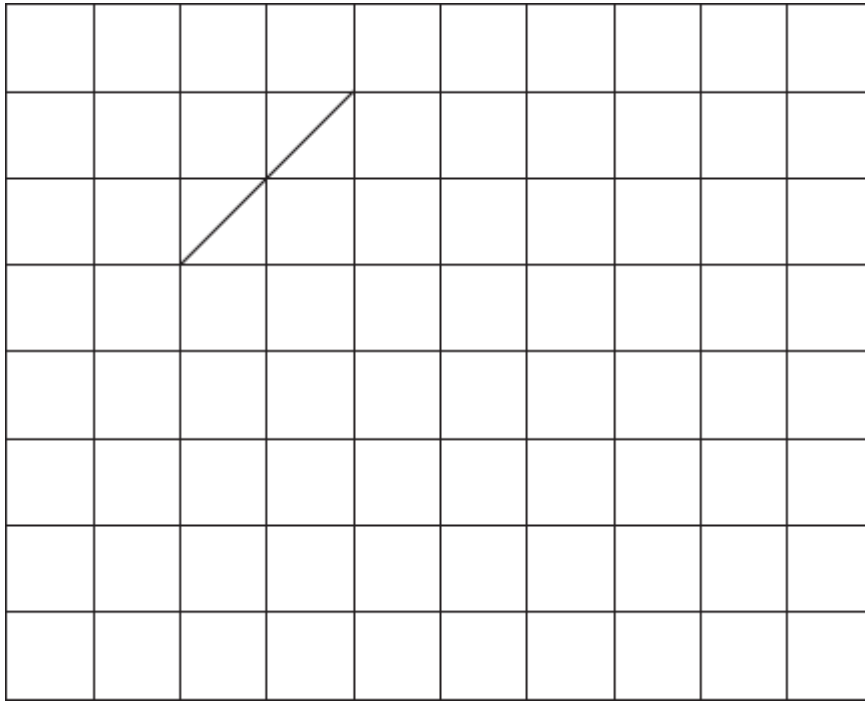
.....

Answer .....

(2)  
(Total 4 marks)

**Q12.** This is a centimetre grid.

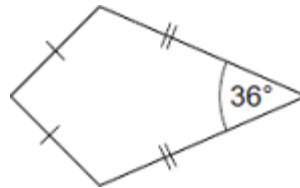
Draw a kite with an area of  $12 \text{ cm}^2$ .  
One side has been drawn for you.



(Total 2 marks)

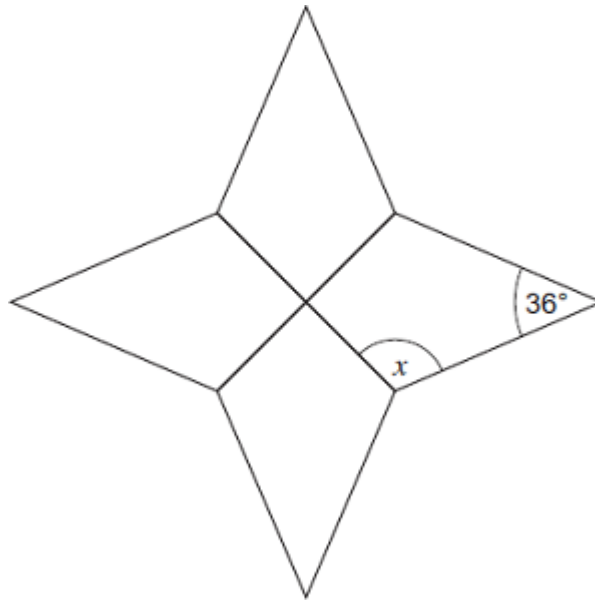
**Q13.** The diagram shows a kite.

Not drawn accurately



Four identical kites are joined to make this shape.

Not drawn accurately



Work out the size of angle  $x$ .

.....

.....

.....

.....

Answer ..... degrees

**(Total 4 marks)**

**Q14.**

(a) Draw a parallelogram.

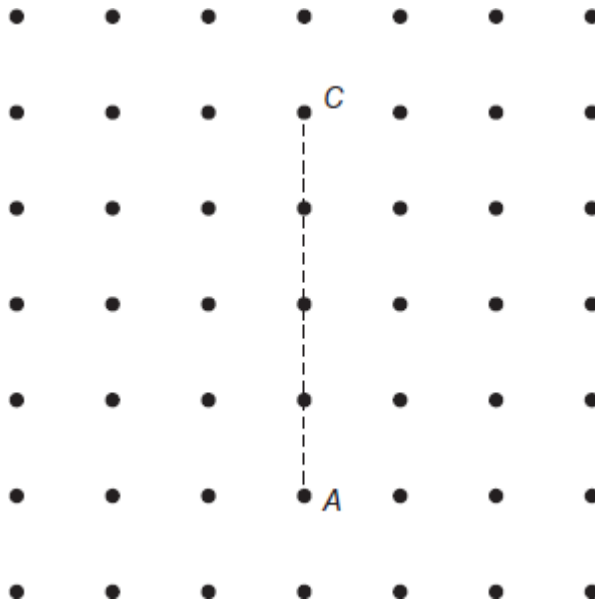
**(1)**

(b) Draw a kite.

(1)

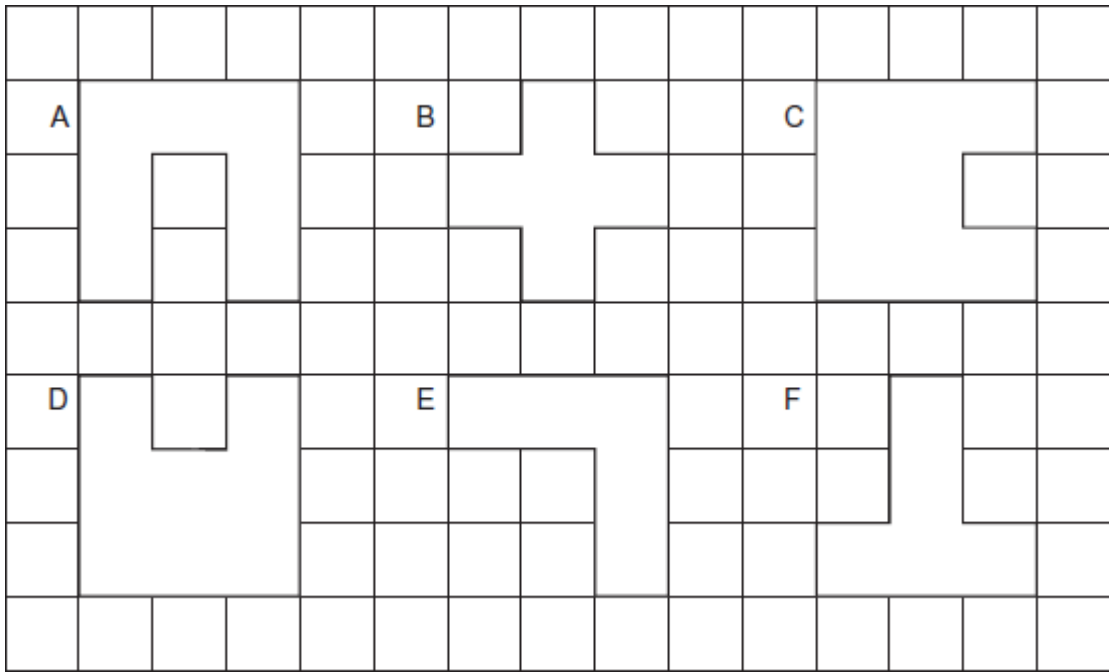
(c)  $AC$  is the **diagonal** of a square  $ABCD$ .

Draw the square  $ABCD$  on the grid.



(1)  
(Total 3 marks)

Q15.



(a) Which two shapes fit together to make a rectangle?

Answer ..... and .....

(1)

(b) Which two shapes are congruent?

Answer ..... and .....

(1)

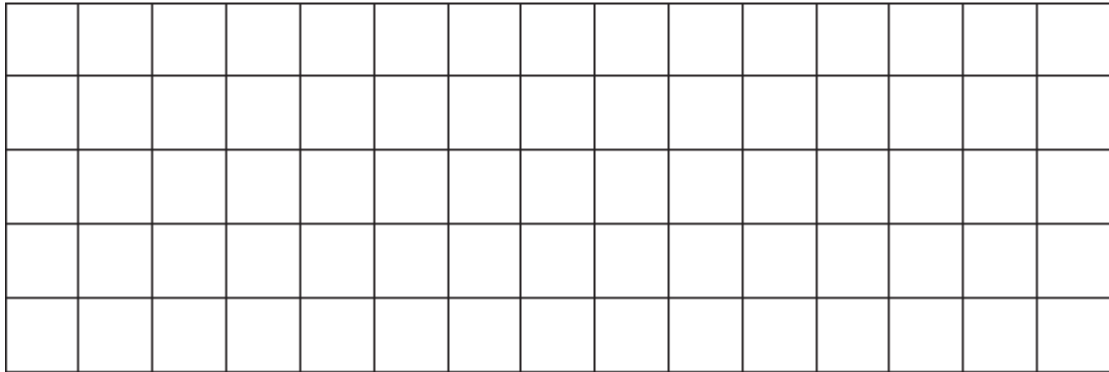
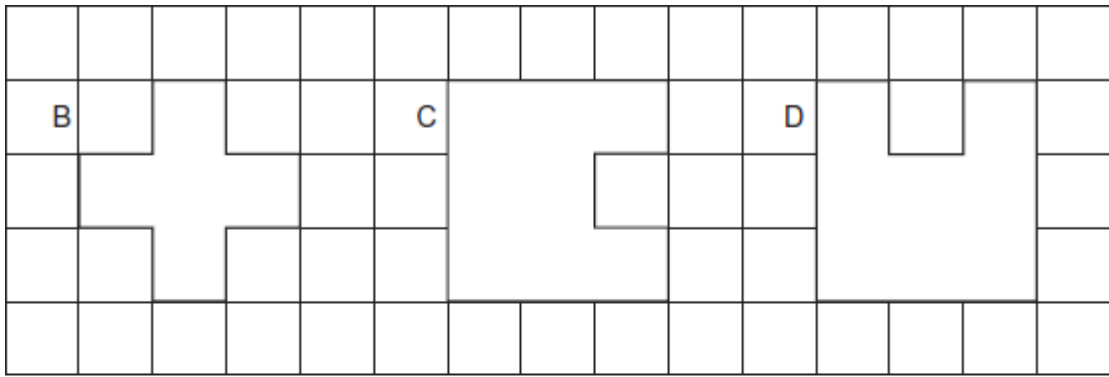
(c) Which two shapes have the same area as shape B?

Answer ..... and .....

(2)

(d) Shapes B, C and D will fit together to make a shape that will tessellate.

On the grid below show how the shapes could fit together.

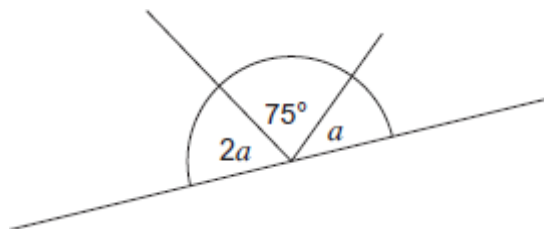


(1)  
(Total 5 marks)

Q16.

- (a) Three angles form a straight line.

Not drawn accurately



Calculate the value of  $a$ .

.....

.....

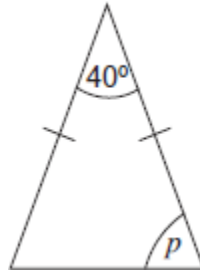
Answer ..... degrees

(3)



(b) This triangle is isosceles.

Not drawn accurately



Calculate the size of angle  $p$ .

.....  
 .....

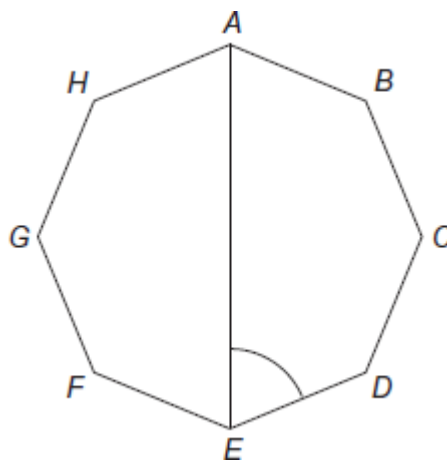
Answer ..... degrees

(2)  
 (Total 5 marks)

**Q17.**

Here is a regular octagon.

Not drawn accurately



Work out the size of angle  $AED$ .

.....  
 .....

.....

Answer ..... degrees

**(Total 3 marks)**