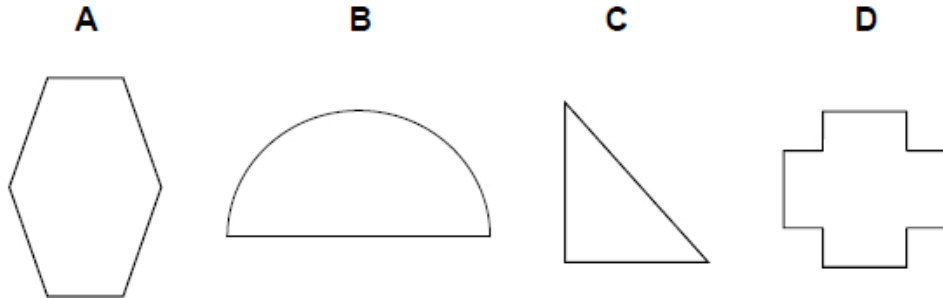


Non-Calculator

Q1.

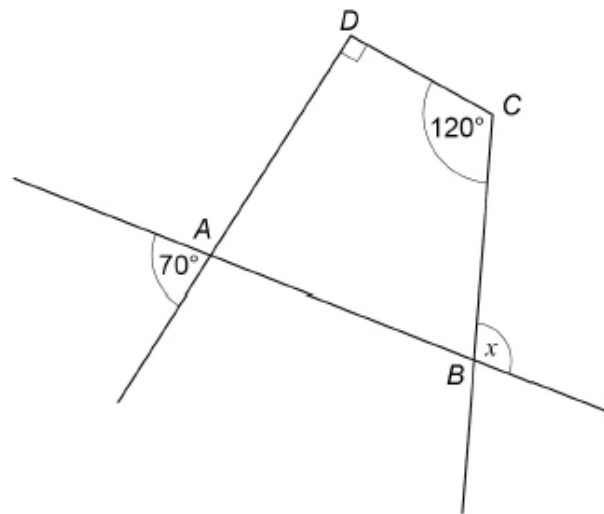
Which shape is **not** a polygon?
Circle the correct letter.



(Total 1 mark)

Q2.

$ABCD$ is a quadrilateral.
Sides are extended as shown.



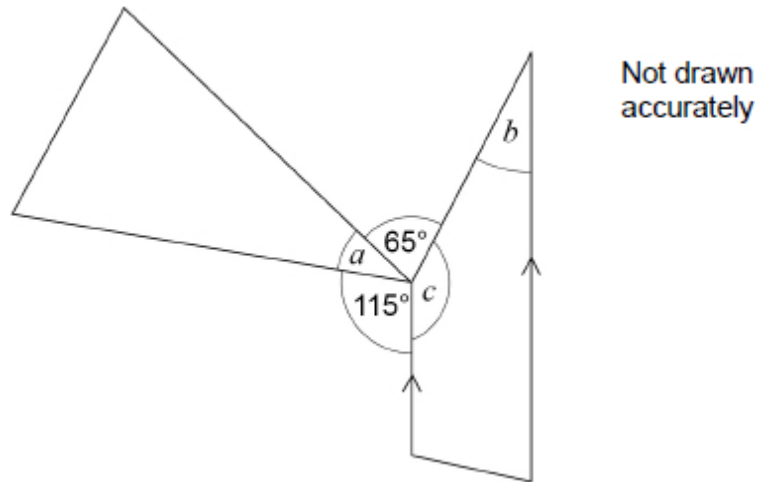
Not drawn
accurately

Show that $x = 100^\circ$

(Total 3 marks)

Q3.

The diagram shows a triangle and a trapezium.

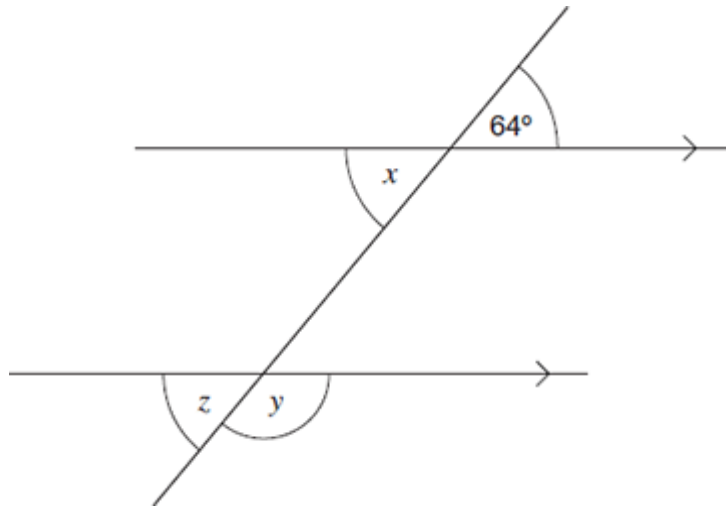


Prove that $a = b$

(Total 3 marks)

Q4.

Not drawn accurately



(a) Write down the size of angle x .

Answer _____ degrees

(1)

(b) Work out the size of angle y .

_____ degrees

(1)

(c) Choose the correct word from the list to complete the sentence.

opposite alternate corresponding interior

Angle x and angle z are _____ angles.

(1)

(Total 3 marks)

Calculator

Q5.

What is the **maximum possible** order of rotational symmetry of a quadrilateral?
Circle your answer.

1

2

4

8

(Total 1 mark)

Q6.

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.

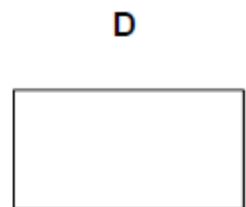
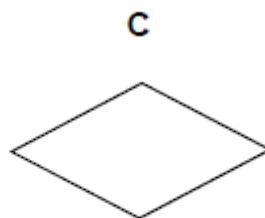
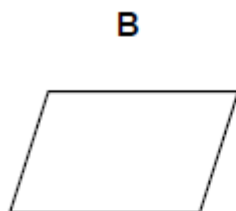
Label each side with its length.

(Total 2 marks)

Q7.

Which shape has **two** lines of symmetry **and** its diagonals intersecting at 90° ?

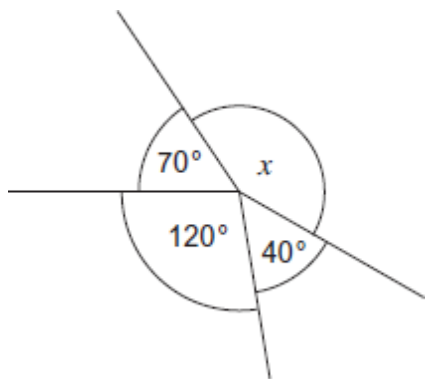
Circle the correct letter.



(Total 1 mark)

Q8.

- (a) Work out the size of angle x .



Not drawn
accurately

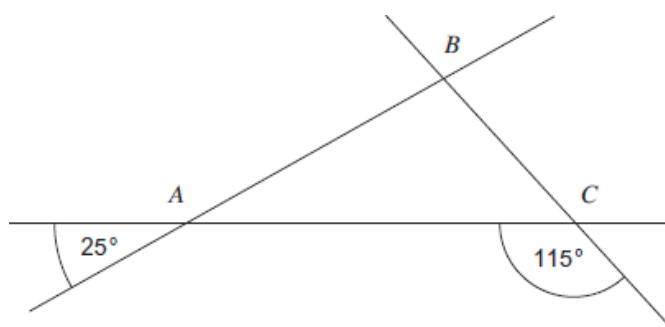
ately

Answer _____ degrees

(3)

- (b) Three straight lines cross as shown.

Not drawn
accurately



What type of triangle is ABC ?

You **must** show your working, which may be on the diagram.

Answer _____

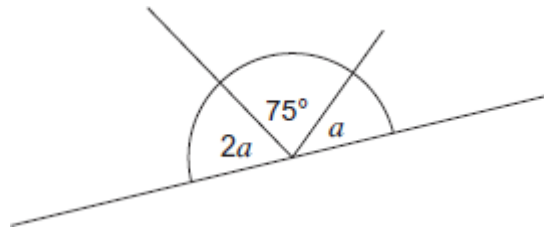
(4)

(Total 7 marks)

Q9.

- (a) Three angles form a straight line.

Not drawn accurately



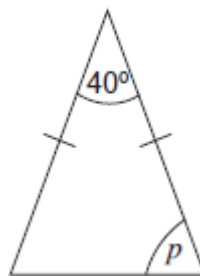
Calculate the value of a .

Answer _____ degrees

(3)

- (b) This triangle is isosceles.

Not drawn accurately



Calculate the size of angle p .

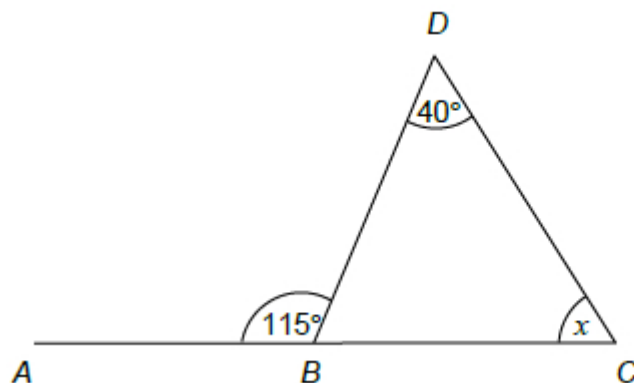
Answer _____ degrees

(2)

(Total 5 marks)

Q10.

Han is trying to work out the size of angle x .



Not drawn accurately

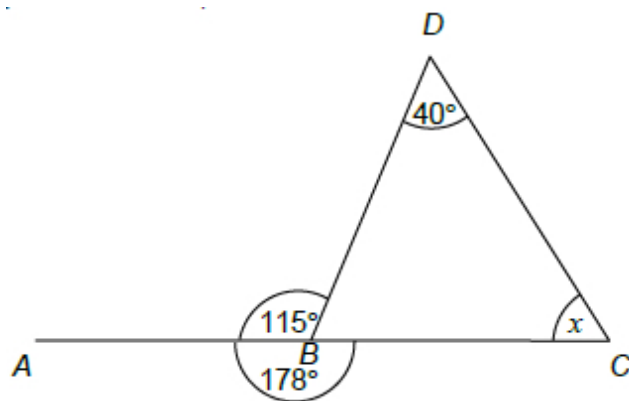
- (a) He assumes that ABC is a straight line.

What answer should he get?

Answer _____ degrees

(2)

- (b) In fact, angle ABC is 178° , as shown.



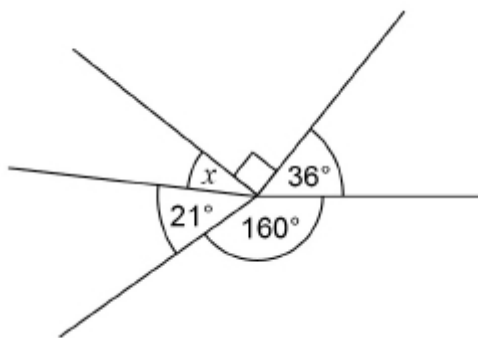
Not drawn accurately

What effect does this have on the size of angle x ?

(1)

(Total 3 marks)

Q11.



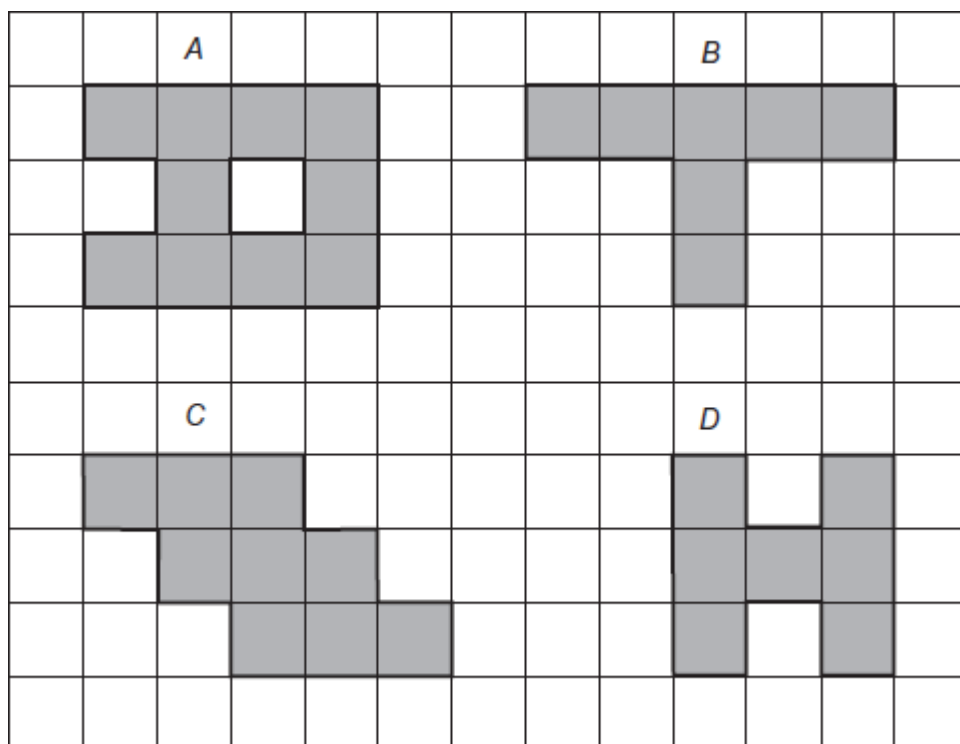
Not drawn accurately

Work out the size of angle x .

Answer _____ degrees
(Total 2 marks)

Q12.

Here are four shapes.



Circle your answers for each part.

(a) Which of these shapes have line symmetry?

A B C D

(2)

(b) Which of these shapes have rotational symmetry of order 2?

A B C D

(2)

(Total 4 marks)

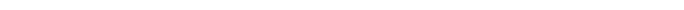
Q13.

(a) Draw a line **parallel** to the line below.



(1)

(b) Draw a line **perpendicular** to the line below.

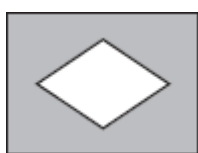


(1)

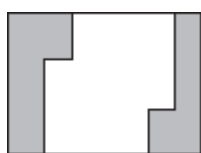
(Total 2 marks)

Q14.

Here are five flags.



A



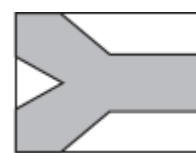
B



C



D



E

- (a) Which **three** flags have line symmetry?

Answer _____, _____ and _____ (2)

- (b) Which **two** flags do **not** have rotational symmetry?

Answer _____ and _____ (2)

- (c) Which flag has rotational symmetry but **not** line symmetry?

Answer _____ (1)

(Total 5 marks)