

E3.5 Symmetry (Inc. Circles)

Question Paper

Level	IGCSE
Subject	Maths (0580)
Exam Board	Cambridge International Examinations (CIE)
Level	Core
Topic	E3. Geometry
Sub-Topic	E3.5 Symmetry (Inc. Circles)
Booklet	Question Paper

Time Allowed: 13 minutes

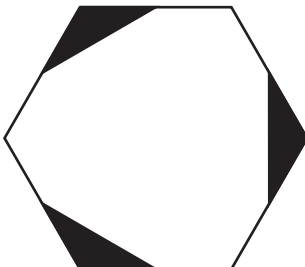
Score: /11

Percentage: /100

Grade Boundaries:

A*	A	B	C	D	E	U
>85%	75%	60%	45%	35%	25%	<25%

1



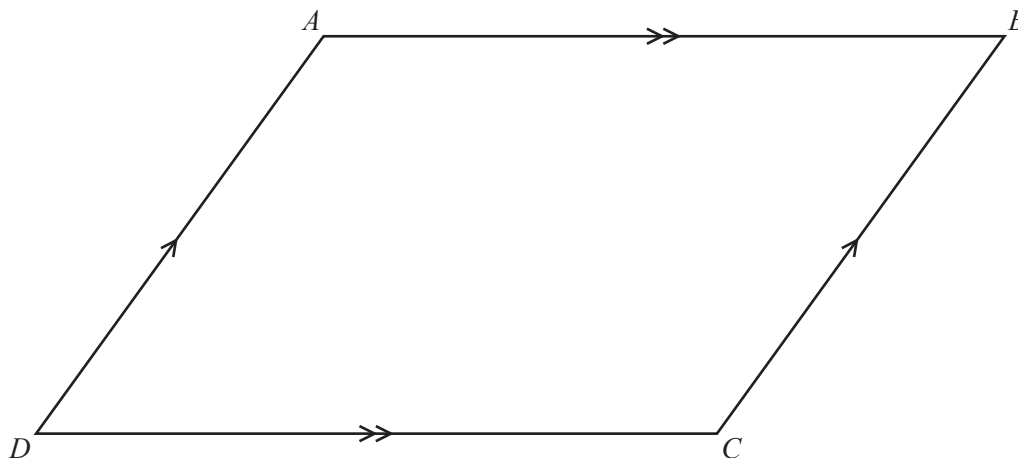
(a) Write down the order of rotational symmetry of the shape.

..... [1]

(b) Draw all the lines of symmetry on the shape.

[1]

2



$ABCD$ is a parallelogram.

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(a) Write down

(i) the order of rotational symmetry of $ABCD$,

Answer(a)(i) [1]

(ii) the number of lines of symmetry of $ABCD$,

Answer(a)(ii) [1]

(iii) the sum of the interior angles of $ABCD$.

Answer(a)(iii) [1]

(b) (i) **Complete this part using a straight edge and compasses only.**
All construction arcs must be clearly shown.

On the diagram, construct the bisector of angle BAD .

Extend this bisector to cut DC at E . Mark E on your diagram.

[2]

(ii) Edelgard knows that angle BAE is the same size as angle AED .

Explain how Edelgard knows this is true without measuring the angles.

Answer(b)(ii) [1]

(iii) Write down the mathematical name for the triangle ADE and give a reason for your answer.

Answer(b)(iii) Name because

..... [2]

(iv) Write down the mathematical name of the quadrilateral $ABCE$.

Answer(b)(iv) [1]