E4.3 Circle Problems (Area, Circumference and Arcs)

Question Paper

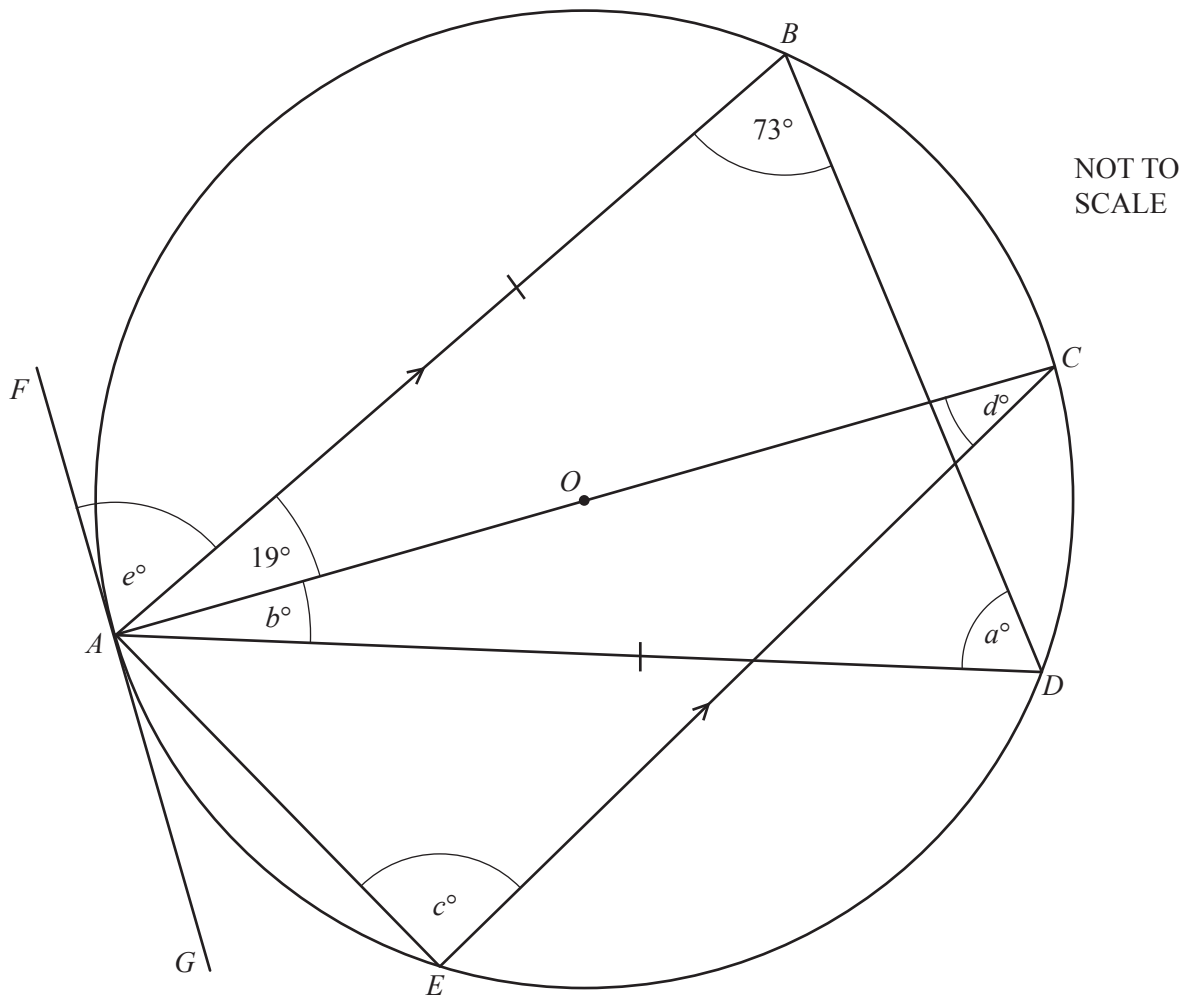|	
Level	IGCSE
Subject	Maths (0580)
Exam Board	Cambridge International Examinations (CIE)
Level	Core
Topic	E4. Mensuration (Perimeters, Areas and Volumes)
Sub-Topic	E4.3 Circle Problems (Area,Circumference&Arcs)
Booklet	Question Paper

Time Allowed: 12 minutes

Score: /10

Percentage: /100

Grade Boundaries:

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

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NOT TO SCALE

A, *B*, *C*, *D* and *E* are points on the circumference of a circle, centre *O*.
GAF is a tangent to the circle at *A*.
AB is parallel to *EC* and *AB* = *AD*.

(a) Write down the mathematical name of triangle *ABD*.

.... [1]

(b) Find the value of

    (i) *a*,

$a = $ .... [1]

    (ii) *b*,

$b = $ .... [1]

    (iii) *c*,

$c = $ .... [1]

    (iv) *d*,

$d = $ .... [1]

    (v) *e*.

$e = $ .... [2]

(c) The diameter, *AC*, of the circle is 13 cm.

Calculate the circumference of the circle.
Give your answer correct to 1 decimal place.

.... cm [3]