

Parallel Lines

Difficulty: Hard

Question Paper 1

Level	IGCSE
Subject	Maths (0580/0980)
Exam Board	CIE
Topic	Geometry
Sub-Topic	Parallel Lines
Paper	Paper 2
Difficulty	Hard
Booklet	Question Paper 1

Time allowed: 30 minutes

Score: /23

Percentage: /100

Grade Boundaries:

CIE IGCSE Maths (0580)

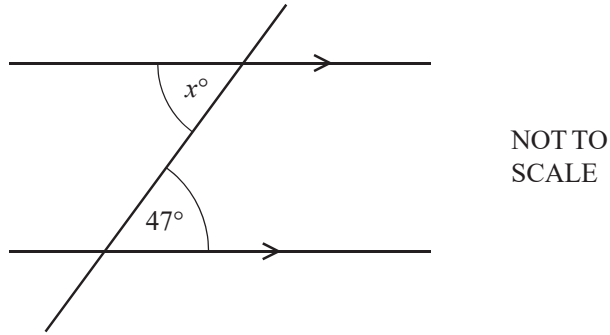
A*	A	B	C	D	E
>88%	76%	63%	51%	40%	30%

CIE IGCSE Maths (0980)

9	8	7	6	5	4	3
>94%	85%	77%	67%	57%	47%	35%

Question 1

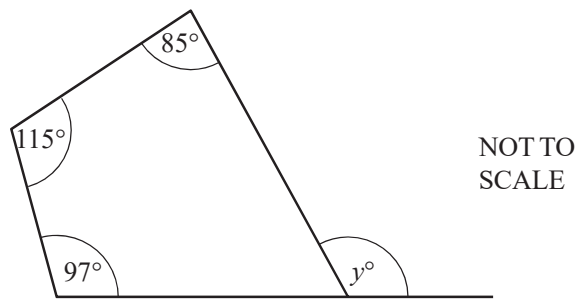
(a)



Find the value of x .

[1]

(b)

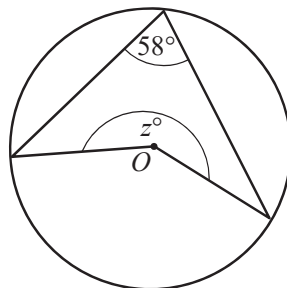


Find the value of y .

[2]

Question 1

(c)



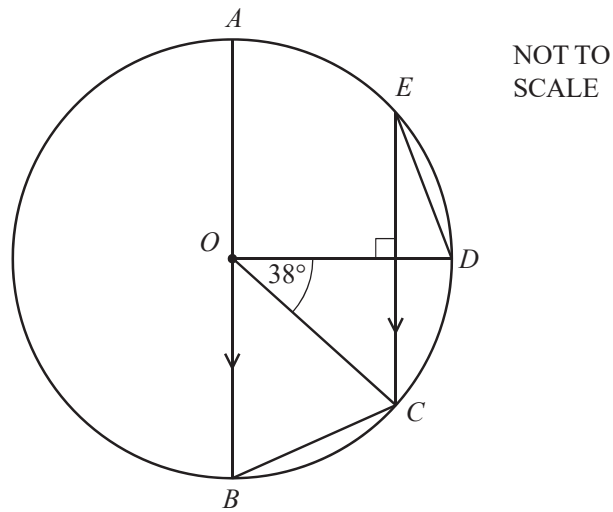
NOT TO
SCALE

The diagram shows a circle, centre O .

Find the value of z .

[2]

Question 2



AB is the diameter of a circle, centre O . C , D and E lie on the circle. EC is parallel to AB and perpendicular to OD . Angle DOC is 38° .

Work out

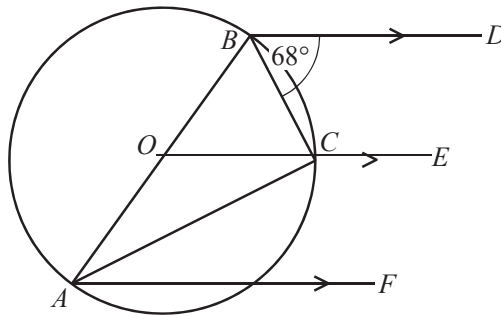
(a) angle BOC , [1]

(b) angle CBO , [1]

(c) angle EDO . [2]

Question 3

NOT TO
SCALE



Points A , B and C lie on a circle, centre O , with diameter AB .
 BD , OCE and AF are parallel lines.
Angle $CBD = 68^\circ$.

Calculate

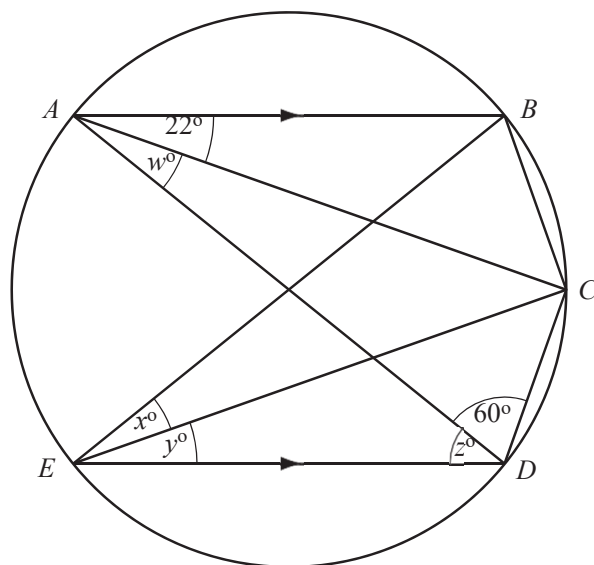
(a) angle BOC ,

[2]

(b) angle ACE .

[2]

Question 4

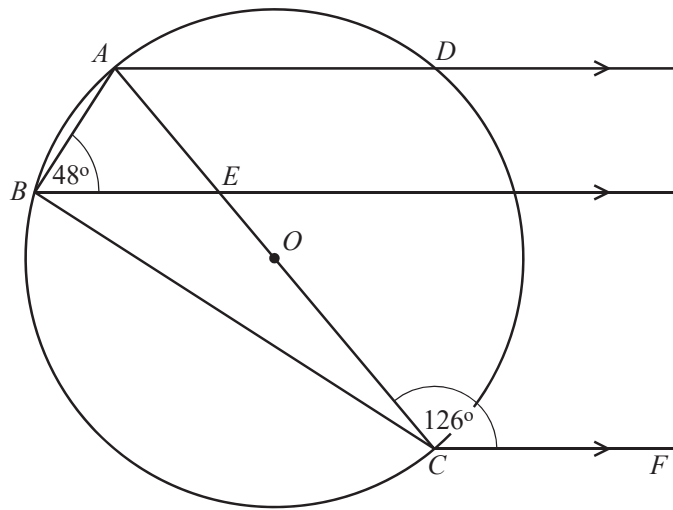


NOT TO
SCALE

AD is a diameter of the circle $ABCDE$.
Angle $BAC = 22^\circ$ and angle $ADC = 60^\circ$.
 AB and ED are parallel lines.
Find the values of w , x , y and z .

[4]

Question 5



NOT TO
SCALE

A , B , C and D lie on a circle centre O . AC is a diameter of the circle.
 AD , BE and CF are parallel lines. Angle $ABE = 48^\circ$ and angle $ACF = 126^\circ$.
Find

(a) angle DAE ,

[1]

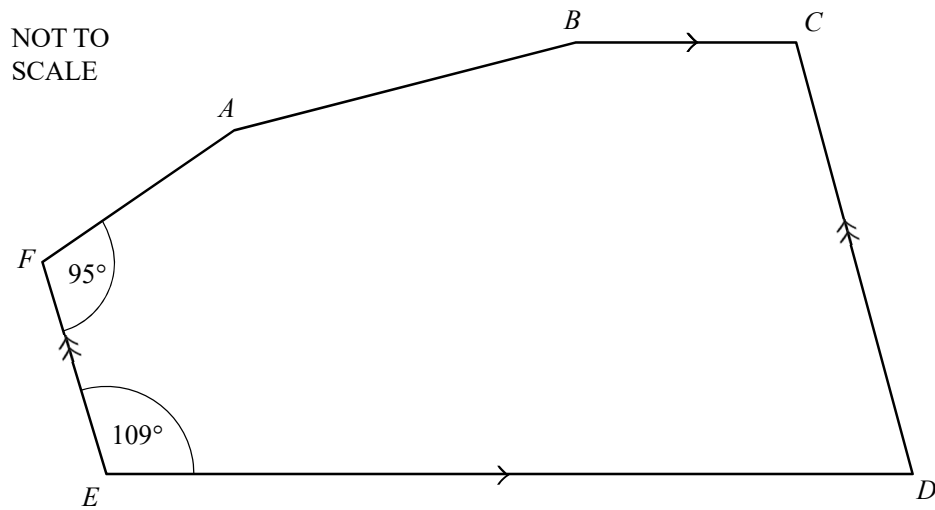
(b) angle EBC ,

[1]

(c) angle BAE .

[1]

Question 6



In the hexagon $ABCDEF$, BC is parallel to ED and DC is parallel to EF .
Angle $DEF = 109^\circ$ and angle $EFA = 95^\circ$.
Angle FAB is equal to angle ABC .
Find the size of

(a) angle EDC ,

[1]

(b) angle FAB .

[2]