

Angles in Parallel Lines

Question Paper

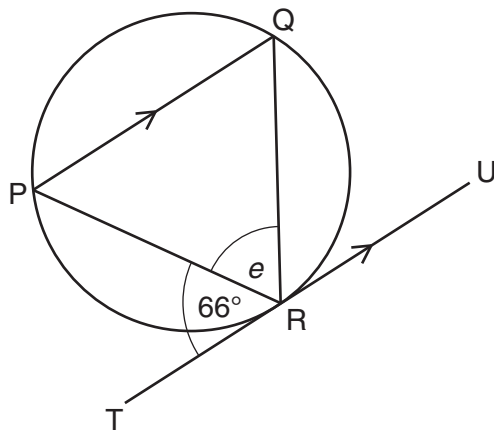
Level	OCR
Subject	Maths
Exam Board	GCSE (9-1)
Topic	Basic Geometry
Sub Topic	Angle in Parallel Lines
Grade Level	Grade 4
Booklet	Question Paper

Time Allowed: 32 minutes

Score: /26

Percentage: /100

1 Chord PQ is parallel to tangent TRU.



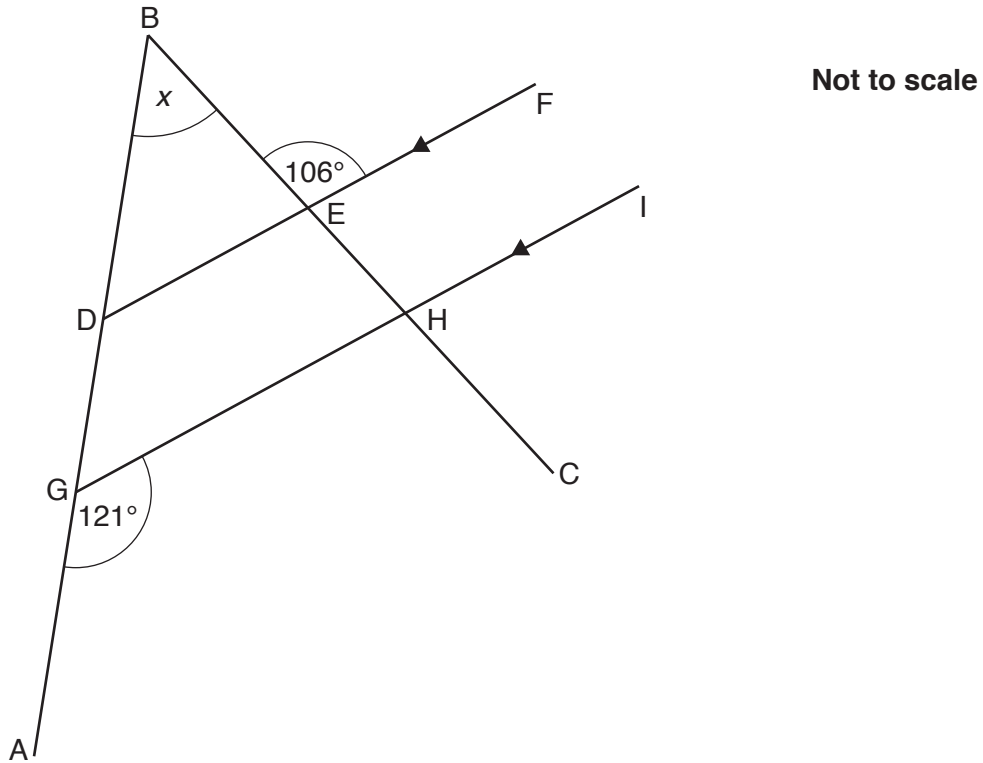
Not to scale

Calculate the size of angle e .

Give a geometrical reason for each stage of your working.

[5]

- 2 The diagram is made from four straight lines. DEF and GHI are parallel.



Calculate the size of angle x .
Give a reason for each stage of your working.

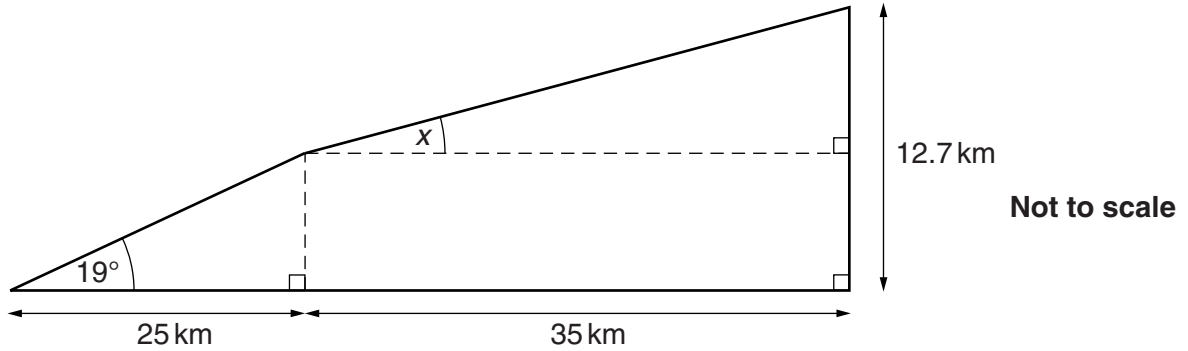
3 An aircraft flew from Amsterdam to Singapore.

(a) On the flight there were 325 passengers.
The ratio adults : children on this flight was 23 : 2.

How many children were on this flight?

(a) _____ **[2]**

- (b) As the aircraft left Amsterdam, at sea level, it climbed at an angle of 19° to the horizontal until it was above a point 25 km from Amsterdam. It then changed the angle of climb until its height above sea level was 12.7 km. The aircraft was then above a point a further 35 km from Amsterdam, as shown in the diagram.

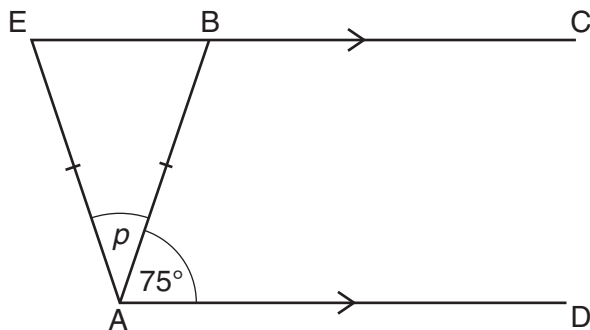


Calculate x , the angle of climb on the second stage of its journey. Show your method clearly.

(b) _____ $^\circ$ [5]

10

- 4 EBC is parallel to AD.
Triangle ABE is isosceles with $AE = AB$.
Angle BAD is 75° .

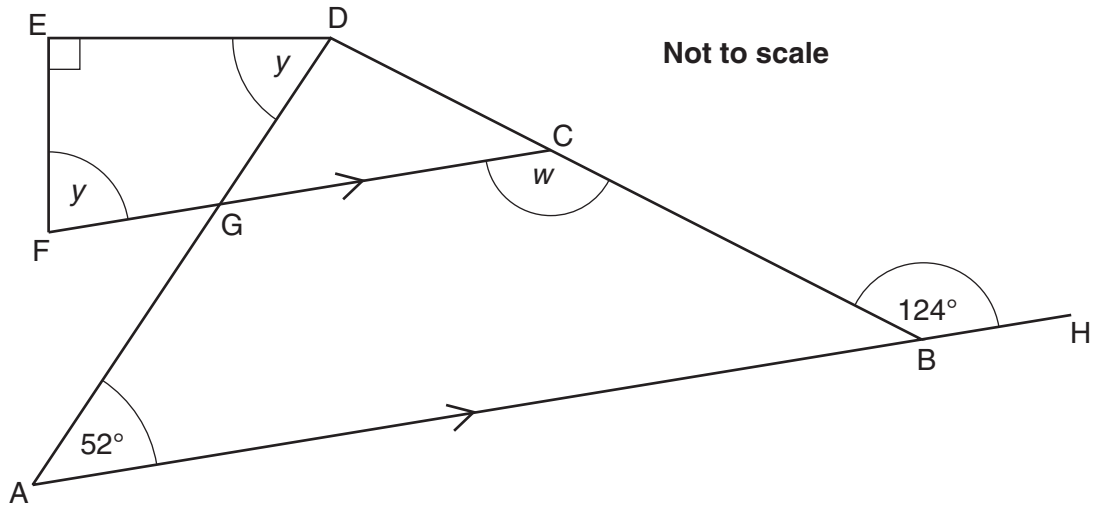


Not to scale

Work out the size of angle p .

_____ ° [3]

- 5 ABH and FGC are parallel straight lines.
 Angle GFE = angle GDE = y .
 Angle DEF = 90° .



- (a) (i) Write down the size of angle w .

(a)(i) _____ $^\circ$ [1]

- (ii) Give a reason for your answer.

 _____ [1]

- (b) Work out the size of angle y .
 Show your working clearly.

(b) _____ $^\circ$ [4]