

22

The n th term of a sequence is $n^2 - 30n + 236$

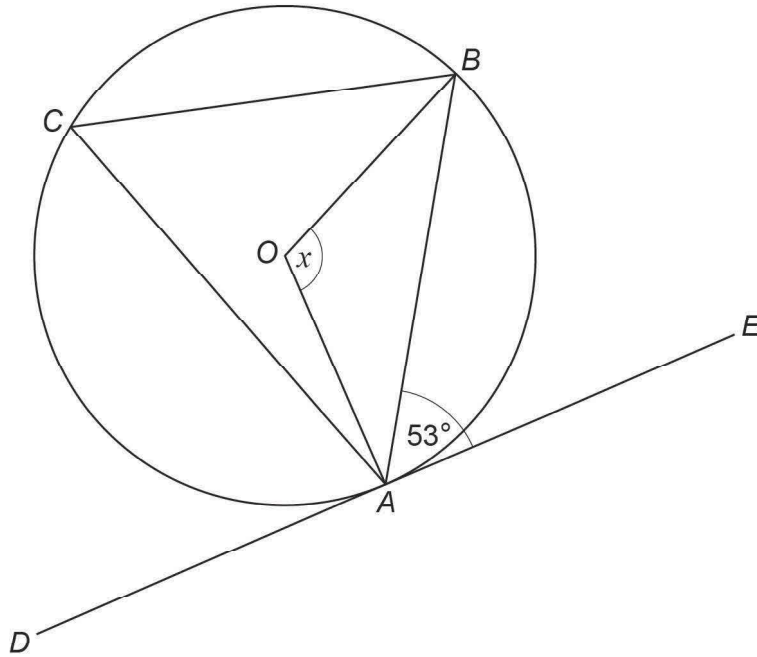
By completing the square,

show that all the terms of the sequence have two or more digits.

[3 marks]



23 (a)

Not drawn
accurately

Line DAE is a tangent at A to the circle with centre O .

Work out the size of angle x .

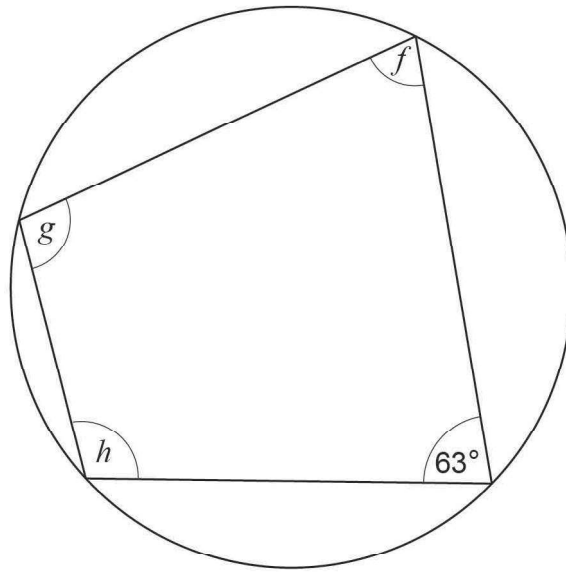
[2 marks]

$x =$ _____ $^\circ$

Turn over for the next question



23 (b) Here is a cyclic quadrilateral.



Not drawn
accurately

$$f : g = 2 : 3$$

Work out $f : h$

Give your answer in its simplest form.

[4 marks]

Answer _____ :



