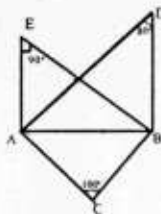


MATHS

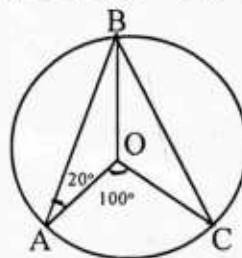
1. Write first three terms of an arithmetic sequence with first term 10 and common difference 7. Is 2019 a term of this sequence? (4)

2. In the figure $\angle C = 100^\circ$, $\angle D = 80^\circ$, $\angle E = 90^\circ$.
If a circle is drawn taking AB as a diameter,
Where will be the position of
E, D, C with respect to the circle? (4)



3. Write the algebraic expression of the arithmetic sequence
9, 15, 21, Find 61th term of the sequence. (4)

4. In the figure, 'O' is the center of the circle and $\angle AOC = 100^\circ$, $\angle A = 20^\circ$.
a) Find $\angle ABC$
b) Find the central angle of ABC
c) Find all angles of $\triangle OAB$, $\triangle OCB$ (4)



5. Draw a triangle of circumradius 3cm and two of the angle $50^\circ, 60^\circ$ (4)

6. Fill up the empty cell of the square below such that the numbers in each row and columns form arithmetic sequence. (5)

2			8
5			29

7. Find the Sums of first 15 natural numbers. The sum of 15 terms of an arithmetic sequence with common difference 6 is 780. Write the algebraic form of the arithmetic sequence and the algebraic form of their sum. (5)
8. The sum of the first three consecutive terms of an arithmetic sequence is 24 and its product is 440. Write the arithmetic sequence. Prove that there is no perfect square in this sequence. (5)

9. 4
7 10
13 16 19
22 25 28 31

Write the next two lines of the pattern above. If there is 25 lines like this, Calculate the total number of terms. Calculate the first and last term of 25th line (5)