Arithematic Progressions Ex 19.1 Q6(iv)

9, 7, 5, 3, ...

$a_4 - a_3 = a_3 - a_2 = a_2 - a_1 = -2$

$\therefore$ The common difference is -2

and the given sequence is A.P

$a_5 = 9 + (-2)(5-1) = 1$

$a_6 = 9 + (-2)(6-1) = -1$

$a_7 = 9 + (-2)(7-1) = -3$

Arithematic Progressions Ex 19.1 Q7

$a_n = 2n + 7$

$a_1 = 2(1) + 7 = 9$

$a_2 = 2(2) + 7 = 11$

$a_3 = 2(3) + 7 = 13$

Here, $a_3 - a_2 = a_2 - a_1 = 2$

$\therefore$ The given sequence is A.P

$a_7 = 2(7) + 7 = 21$

7th term is 21.

Arithematic Progressions Ex 19.1 Q8

$a_n = 2n^2 + n + 1$

$a_1 = 2(1)^2 + (1) + 1 = 4$

$a_2 = 2(2)^2 + (2) + 1 = 11$

$a_3 = 2(3)^2 + (3) + 1 = 21$

$a_3 - a_2 \neq a_2 - a_1$

$\therefore$ The given sequence is not as A.P as consequtive terms do not have a common difference.

********** END **********