

X- Mathematics Assignment No-04-Arithmetic Progression

- Q1. For what value of n , the n^{th} terms of the sequences $63, 65, 67, \dots$ and $3, 10, 17, \dots$ are equal?
- Q2. How many three digit numbers leave the remainder the remainder 2 when divided by 9?
- Q3. How many three digit numbers are divisible by 7?
- Q4. If the first and the last terms of an AP consisting 60 terms are 7 and 125 respectively. Find its 25^{th} term.
- Q5. If the 9^{th} term of an AP is zero, prove that 29^{th} term is double the 19^{th} term.
- Q6. 4th term of an AP is 3 times the first and the 7th term exceeds twice the 3rd term by 1. Find the first term and the common difference.

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Q7. Find x, y from the following AP's

(i) 5, x , 11

(ii) 4, x , 16, y

Q8 Find the missing p, q, r from the following AP's

(i) p , 16, q , 8, r

(ii) 3, p , 7, q , 11, r

Q9 The 4th term of an AP is equal to 3 times the first term and the 7th term exceeds the third term by 1.

Find the 1st term and the AP.

Q10. The tenth term of an AP is (-4) and its 22nd term is (-16). Find its 38th term and the n th term.

ANSWERS:-

(Q1) 13	(Q6) $a = 3, d = 2$	(Q9) $a = 3$; series $3, 5, 7, 9, \dots$
(Q2) 100	(Q7) (i) $x = 8$	(Q10) $t_{22} = -32$
(Q3) 128	(ii) $n = 9; y = 19$	$t_n = (6-n)$
(Q4) 55	(Q8) (i) $p = 20; q = 12; r = 4$	
(Q5) -	(ii) $p = 5; q = 9; r = 13$	