

X- Mathematics Assignment No-02-Arithmetic Progression

Q1. Form a A.P with first term in 5,
and the common difference is 3

Q2. Write the next three terms in
the following A.P.

$$1, -1, -3, -5, \dots$$

Q3. Write the general term and 5th term
of the series

$$\frac{1}{a}, \frac{1+2a}{a}, \frac{1+4a}{a}, \dots$$

Q4. Which term of the sequence
72, 70, 68, ... is 40?

Q5. Is the following sequence in
AP?

(i) 0.3, 0.03, 0.003, ...

(ii) $\sqrt{2}$, $\sqrt{2}+1$, $\sqrt{2}+2$, $\sqrt{2}+3$, ...

Q6. Write the common difference of the
following AP

$$0.5, 0.85, 1.20, 1.55, \dots$$

Cont Pg-2

Q7. The n^{th} term of a progression is $3n+1$. Prove that it is an A.P. Find its 5th term.

Q8. How many terms are there in the following A.P.?

(i) 10, 13, 16, 49

(ii) $14\frac{1}{2}$, 12, (-38).

Q9. Which term of the AP is 320 in the series

5, 8, 11,

Q10. Is 310 a term of the sequence

3, 8, 11,

ANSWERS

(Q1) 5, 8, 11,

(Q5) i) No

ii) Yes

(Q2) -7, -9, -11

(Q6) $d = 0.35$

(Q3) $t_n = 2n + \left(\frac{1}{a} - 1\right)$

(Q7) It is in AP

$$t_5 = \frac{1}{a} + 8$$

because the common difference remains the same between two consecutive terms

(Q4). 17th

(Q8) i) 14

ii) 22

(Q9) $n = 106$

(Q10) No.