



1. The t_{18} of an A.P. is 53 and the t_8 is 23 . Find t_{16} .

- (i) 45 (ii) 49 (iii) 48 (iv) 47 (v) 46

2. The t_{11} of an A.P. is $\frac{41}{12}$ and the t_7 is $\frac{11}{4}$. Find t_{14} .

- (i) $\frac{47}{14}$ (ii) $\frac{49}{12}$ (iii) $\frac{47}{12}$ (iv) $\frac{15}{4}$ (v) $\frac{47}{10}$

3. Find the sum of first 64 natural numbers

- (i) 2079 (ii) 2080 (iii) 2082 (iv) 2077 (v) 2081

4. Find the next 4 terms of the following A.P.

$(2a+5b), (6a+13b), (10a+21b), \dots$

- (i) $(18a+37b), (22a+45b), (26a+53b), (30a+61b)$ (ii) $(12a+26b), (16a+34b), (20a+42b), (24a+50b)$
(iii) $(12a+24b), (16a+32b), (20a+40b), (24a+48b)$ (iv) $(14a+29b), (18a+37b), (22a+45b), (26a+53b)$
(v) $(16a+34b), (20a+42b), (24a+50b), (28a+58b)$

5. Find t_n of the A.P. 1, 8, 15, 22, 29, . . .

- (i) $(9n-6)$ (ii) $(4n-6)$ (iii) $(7n+1)$ (iv) $(7n-6)$ (v) $(7n-5)$

6. Find t_n of the A.P. $\frac{7}{6}, \frac{23}{18}, \frac{25}{18}, \frac{3}{2}, \frac{29}{18}, \dots$

- (i) $(\frac{1}{9}n + \frac{19}{18})$ (ii) $(\frac{1}{9}n + \frac{7}{6})$ (iii) $(\frac{1}{9}n + \frac{20}{9})$ (iv) $(\frac{28}{9}n + \frac{19}{18})$ (v) $(-\frac{26}{9}n + \frac{19}{18})$

7. The t_3 of an A.P is p and t_4 is q . Find t_{13} and t_n .

- (i) $(-9p+10q), (-pn+p+qn-q)$ (ii) $(-9p+10q), (-pn+4p+qn-3q)$
(iii) $(-8p+9q), (-pn+4p+qn-3q)$ (iv) $(-10p+11q), (-pn+3p+qn-2q)$
(v) $(-6p+8q), (-pn+7p+qn-5q)$

8. Determine k so that $(7k+7), (2k+7)$ and $(8k+3)$ are the consecutive terms of an A.P

- (i) $\frac{4}{9}$ (ii) $\frac{2}{11}$ (iii) $\frac{6}{11}$ (iv) $\frac{4}{11}$ (v) $\frac{4}{13}$

9. The product of two numbers is 17375 and their arithmetic mean is 132 .

Find the two numbers.

- (i) (126,140) (ii) (128,139) (iii) (141,127) (iv) (125,139) (v) (125,138)

10. Find the sum of all natural numbers between 1 and 100 which are multiples of 7?

- (i) 732 (ii) 737 (iii) 736 (iv) 735 (v) 734

11. Find the sum of all natural numbers between 100 and 200 which are multiples of 3?

- (i) 4951 (ii) 4950 (iii) 4949 (iv) 4952 (v) 4947

12. Find the sum of the following A.P. series

$(8x+9y), (16x+2y), (24x-5y) \dots$ to 10 terms

- (i) $(352x-308y)$ (ii) $(368x-290y)$ (iii) $(440x-225y)$ (iv) $(368x-178y)$ (v) $(352x-164y)$

13. Find t_n of the A.P. 3, 10, 17, . . .

- (i) $(7n-4)$ (ii) $(8n-4)$ (iii) $(7n+3)$ (iv) $(7n-1)$ (v) $(4n-4)$

14. If S_{80} and S_{70} of an A.P. are 19520 and 14980 respectively, then $S_{150} =$

- (i) 68100 (ii) 68101 (iii) 68098 (iv) 68102

If $x \neq y$ and the sequences x, a_1, a_2, y and x, b_1, b_2, y

15. each are in A.P., then $\frac{a_2 - a_1}{b_2 - b_1} =$

- (i) $\frac{4}{3}$ (ii) 1 (iii) $\frac{3}{2}$ (iv) $\frac{2}{3}$ (v) $(-\frac{3}{4})$

16. If there are n arithmetic means between a and b , the common difference $d =$

- (i) $\frac{(a-b)}{(n+1)}$ (ii) $\frac{(a+b)}{(n+1)}$ (iii) $\frac{(n-1)}{(a+b)}$ (iv) $\frac{(b-a)}{(n+1)}$ (v) $\frac{(b-a)}{(n-1)}$

17. The sum of first n natural number is

- (i) $\frac{(n-1)(n+1)}{2}$ (ii) $\frac{n^2(n+1)^2}{4}$ (iii) $\frac{(n)(n+1)(2n+1)}{6}$ (iv) $\frac{(n)(n-1)}{2}$ (v) $\frac{(n)(n+1)}{2}$

The measures of the interior angles of a convex polygon are in A.P.

18. If the smallest angle is 134 and the largest angle is 166, then the number of sides of the polygon is

- (i) 15 (ii) 13 (iii) 9 (iv) 12 (v) 11

19. If the t_n of an A.P is $(9n+2)$, find S_n

- (i) $\frac{(2)(n^2+n)}{2} + 2n$ (ii) $\frac{(6)(n^2+n)}{2} + 2n$ (iii) $\frac{(9)(n^2+n)}{2} + 2n$ (iv) $\frac{(9)(n^2+n)}{2} + 3n$
(v) $\frac{(3)(n^2+n)}{2} + 5n$

20. Determine t_8 and t_n of an A.P. whose t_6 is 36 and t_9 is 54.

- (i) 50; $9n$ (ii) 46; $2n$ (iii) 47; $(6n+6)$ (iv) 48; $6n$ (v) 49; $(6n+6)$

Assignment Key

1) (iv)	2) (iii)	3) (ii)	4) (iv)	5) (iv)	6) (i)
7) (ii)	8) (iv)	9) (iv)	10) (iv)	11) (ii)	12) (iii)
13) (i)	14) (i)	15) (ii)	16) (iv)	17) (v)	18) (iv)
19) (iii)	20) (iv)				