



1. Given $a = 9$, $d = 6$, $S_n = 105$, find n

- (i) 6 (ii) 5 (iii) 4 (iv) 3 (v) 7

2. If $a = 5$ and $d = 1$, find t_9 of the A.P.

- (i) 13 (ii) 16 (iii) 12 (iv) 10 (v) 14

3. Find the sum of all natural numbers between 100 and 200 which are multiples of 8?

- (i) 1777 (ii) 1776 (iii) 1775 (iv) 1773 (v) 1778

4. Given $t_n = 101$, $d = 5$, $n = 20$, find S_n

- (i) 1071 (ii) 1069 (iii) 1070 (iv) 1073 (v) 1068

5. Determine t_2 and t_n of an A.P. whose t_3 is 22 and t_4 is 30.

- (i) $14 ; (8n - 2)$ (ii) $13 ; (8n + 6)$ (iii) $12 ; (4n - 2)$ (iv) $15 ; (8n + 4)$ (v) $16 ; (10n - 2)$

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

6. $(8a - 9b), (5a - 5b), (2a - b), \dots$

- (i) $(10a - 10b), (7a - 6b), (4a - 2b), (a + 2b)$ (ii) $(-4a + 7b), (-7a + 11b), (-10a + 15b), (-13a + 19b)$
(iii) $(7a - 6b), (4a - 2b), (a + 2b), (-2a + 6b)$ (iv) $(-a + 3b), (-4a + 7b), (-7a + 11b), (-10a + 15b)$
(v) $(-9a + 12b), (-12a + 16b), (-15a + 20b), (-18a + 24b)$

7. The t_8 of an A.P is p and t_9 is q . Find t_{13} and t_n .

- (i) $(4p - 2q), (-pn + 17p + qn - 15q)$ (ii) $(-5p + 6q), (-pn + 8p + qn - 7q)$ (iii) $(-4p + 5q), (-pn + p + qn - q)$
(iv) $(-4p + 5q), (-pn + 9p + qn - 8q)$ (v) $(-3p + 4q), (-pn + 9p + qn - 8q)$

8. Determine t_7 of an A.P whose t_5 is 44 and common difference is 9

- (i) 59 (ii) 62 (iii) 61 (iv) 64 (v) 63

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

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

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

Find the common difference and next four terms of the

10. following A.P. $\frac{9}{8}, \frac{35}{24}, \frac{43}{24}, \dots =$

- (i) $1\frac{1}{3}; (\frac{-7}{8}), (\frac{-37}{24}), (\frac{-53}{24}), (\frac{-23}{8})$ (ii) $1\frac{1}{3}; \frac{41}{8}, \frac{155}{24}, \frac{187}{24}, \frac{73}{8}$ (iii) $1\frac{1}{3}; \frac{17}{8}, \frac{59}{24}, \frac{67}{24}, \frac{25}{8}$
(iv) $\frac{1}{3}; \frac{17}{8}, \frac{59}{24}, \frac{67}{24}, \frac{25}{8}$

11. Find S_{21} of the A.P. 3, 8, 13, ... =

- (i) 1112 (ii) 1114 (iii) 1111 (iv) 1116 (v) 1113

12. Given $t_n = 65$, $a = 9$, $n = 15$, find S_n

- (i) 554 (ii) 557 (iii) 552 (iv) 555 (v) 556

13. The common difference of the A.P. 9, 16, 23, ... =

- (i) 6 (ii) 7 (iii) 9 (iv) 8 (v) 5

14. Which term of the A.P. $\frac{1}{4}, \frac{13}{36}, \frac{17}{36}, \dots$ is $\frac{65}{36}$?

- (i) t_{16} (ii) t_{13} (iii) t_{17} (iv) t_{14} (v) t_{15}

15. Find the sum of first 65 natural numbers

- (i) 2146 (ii) 2144 (iii) 2148 (iv) 2145 (v) 2142

16. The sum of first n natural number is

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

17. The common difference of the A.P. $\frac{2}{9}, \frac{5}{9}, \frac{8}{9}, \dots =$

- (i) $\frac{1}{5}$ (ii) $(-\frac{1}{3})$ (iii) $\frac{1}{3}$ (iv) 1

18. Given $t_n = 71$, $a = 8$, $n = 8$, find d

- (i) 12 (ii) 9 (iii) 10 (iv) 7 (v) 8

19. Find t_{19} of the A.P. 3, 10, 17, ... =

- (i) 128 (ii) 127 (iii) 129 (iv) 132 (v) 130

20. Find t_n of the A.P. $\frac{7}{6}, \frac{55}{42}, \frac{61}{42}, \frac{67}{42}, \frac{73}{42}, \dots$

- (i) $(\frac{15}{7}n + \frac{43}{42})$ (ii) $(\frac{1}{7}n + \frac{46}{21})$ (iii) $(\frac{1}{7}n + \frac{7}{6})$ (iv) $(-\frac{27}{7}n + \frac{43}{42})$ (v) $(\frac{1}{7}n + \frac{43}{42})$

21. Insert 1 arithmetic means between $\frac{4}{9}$ and $\frac{2}{3}$.

- (i) $\frac{1}{3}$ (ii) $\frac{5}{9}$ (iii) $\frac{37}{63}$ (iv) $\frac{7}{9}$ (v) $\frac{53}{99}$

22. How many terms of the A.P. 5, 14, 23, ... are needed to make the sum 165?

- (i) 5 (ii) 4 (iii) 8 (iv) 7 (v) 6

23. Given $a = 3$, $d = 7$, $n = 5$, find t_n

- (i) 32 (ii) 34 (iii) 30 (iv) 31 (v) 29

24. The t_{16} of an A.P. is $\frac{59}{21}$ and the t_{19} is $\frac{68}{21}$. Find t_{18} .

- (i) $\frac{65}{23}$ (ii) 3 (iii) $\frac{65}{21}$ (iv) $\frac{65}{19}$ (v) $\frac{67}{21}$

25. The t_7 of an A.P. is 18 and the t_{19} is 42. Find t_{15} .

- (i) 35 (ii) 33 (iii) 34 (iv) 31 (v) 37

Assignment Key

1) (ii)	2) (i)	3) (ii)	4) (iii)	5) (i)	6) (iv)
7) (iv)	8) (ii)	9) (i)	10) (iv)	11) (v)	12) (iv)
13) (ii)	14) (v)	15) (iv)	16) (i)	17) (iii)	18) (ii)
19) (iii)	20) (v)	21) (ii)	22) (v)	23) (iv)	24) (iii)
25) (iii)					