

Q1. Check whether 301 is a term of the AP : 5, 11, 17, 23, ....

Ans. No

Q2. Check whether -150 is a term of the AP : 11, 8, 5, 2, ....

Ans. No

Q3. Check whether 184 is a term of the AP : 3, 7, 11, ....

Ans. No

Q4. Check whether 124 is a term of the AP : 4, 9, 14, 19, ....

Ans. Yes

Q5. Find the number of terms in each of the following AP :

(i) 7, 10, 13, ..., 43.                      (ii)  $-1, -\frac{5}{6}, -\frac{2}{3}, -\frac{1}{2}, \dots, \frac{10}{3}$ .

Ans. (i) 13      (ii) 27

(iii) 7, 13, 19, ..., 205.                      (iv)  $18, 15\frac{1}{2}, 13, \dots, -47$ .

Ans. (iii) 34      (iv) 27

Q6. Find the 20<sup>th</sup> term from the last term of the AP : 3, 8, 13, ..., 253.

Ans. 158

Q7. Find the 8<sup>th</sup> term from the last term of the AP : 7, 10, 13, ..., 184.

Ans. 163

Q8. Find the 10<sup>th</sup> term from the end of the AP : 8, 10, 12, ..., 126.

Ans. 158

Q9. Find the 9<sup>th</sup> term from the end of the AP : 5, 9, 13, ..., 185.

Ans. 153

Q10. Find the 11<sup>th</sup> term from the last of the AP : 10, 7, 4, ..., -62.

Ans. -32

Q11. Determine the AP whose 3<sup>rd</sup> term is 5 and the 7<sup>th</sup> term is 9.

Ans. AP : 3, 4, 5, ....

Q12. Determine the AP whose 7<sup>th</sup> term is 32 and the 13<sup>th</sup> term is 62.

Ans. AP : 2, 7, 12, ...

Q13. Find the 40<sup>th</sup> term of the AP whose 6<sup>th</sup> term is 19 and 17<sup>th</sup> term is 41.

Ans. 87

Q14. Find the 31<sup>st</sup> term of the AP whose 11<sup>th</sup> term is 38 and 16<sup>th</sup> term is 73.

Ans. 178

Q15. An AP consists of 50 terms of which 3<sup>rd</sup> term is 12 and the last term is 106. Find the 29<sup>th</sup> term.      Ans. 64

Q16. An AP consists of 9 terms of which 4<sup>th</sup> term is 7 and the last term is 17. Find the 15<sup>th</sup> term.      Ans. 29

Q17. If the 3<sup>rd</sup> and 9<sup>th</sup> terms of the AP are 4 and -8 respectively, which term of this AP is zero ?

Ans. 5<sup>th</sup> term

Q18. If the 2<sup>nd</sup> and 7<sup>th</sup> terms of the AP are 18 and 3 respectively, which term of this AP is -81 ?

Ans. 35<sup>th</sup> term

Q19. The 17<sup>th</sup> term of an AP exceeds its 10<sup>th</sup> term by 7. Find the common difference.

Ans. d = 1

Q20. Determine the AP whose 3<sup>rd</sup> term is 16 and the 7<sup>th</sup> term exceeds the 5<sup>th</sup> term by 12.      Ans. 4, 10, 16, ....

Q21. Determine the AP whose 2<sup>nd</sup> term is 10 and the 6<sup>th</sup> term exceeds the 4<sup>th</sup> term by 12.      Ans. 4, 10, 16, ....

Q22. Determine the AP whose 8<sup>th</sup> term is 37 and the 15<sup>th</sup> term is 15 more than the 12<sup>th</sup> term.      Ans. 2, 7, 12, ....

Q23. The sum of 4<sup>th</sup> and 8<sup>th</sup> terms of an AP is 24 and the sum of 6<sup>th</sup> and 10<sup>th</sup> terms is 44. Find the AP.

Ans. -13, -8, -3, ....

Q24. The sum of 5<sup>th</sup> and 9<sup>th</sup> terms of an AP is 72 and the sum of 7<sup>th</sup> and 12<sup>th</sup> terms is 97. Find the AP.

Ans. 6, 11, 16, ....

