

MATHEMATICS**CLASS -10****Chapter – 5 ARITHMETIC PROGRESSION****“WORKSHEET - 2”***Practice Multiple Choice Questions (50 Questions with Answer Key)*

Q1. The n -th term of an AP is given by $a_n = 3 + 4n$. The common difference is:

- (A) 7
- (B) 3
- (C) 4
- (D) 1

Q2. If p , q , r and s are in AP, then $r - q$ is equal to:

- (A) $s - p$
- (B) $s - q$
- (C) $s - r$
- (D) $p - q$

Q3. Sum of the first n natural numbers is:

- (A) $n(n-1)/2$
- (B) $n(n+1)/2$
- (C) $n/2$
- (D) $(n+1)/2$

Q4. The common difference of the AP $1/p$, $(1-p)/p$, $(1-2p)/p$, ... is:

- (A) p
- (B) $-p$
- (C) -1
- (D) 1

Q5. The common difference of the AP $1/3$, $5/3$, $9/3$, $13/3$, ... is:

- (A) $1/3$
- (B) $4/3$
- (C) $2/3$
- (D) 1

Q6. The next term of the AP $\sqrt{7}$, $\sqrt{28}$, $\sqrt{63}$, ... is:

- (A) $\sqrt{70}$
- (B) $\sqrt{84}$
- (C) $\sqrt{97}$
- (D) $\sqrt{112}$

Q7. If 4, x, 12 are in AP, then the value of x is:

- (A) 6
- (B) 8
- (C) 10
- (D) 16

Q8. The 10th term of the AP: 5, 8, 11, 14, ... is:

- (A) 32
- (B) 35
- (C) 38
- (D) 185

Q9. In an AP, if $d = -4$, $n = 7$, $a_n = 4$, then a is:

- (A) 6
- (B) 7
- (C) 20
- (D) 28

Q10. In an AP, if $a = 3.5$, $d = 0$, $n = 101$, then a_n will be:

- (A) 0
- (B) 3.5
- (C) 103.5
- (D) 104.5

Q11. The list of numbers -10, -6, -2, 2, ... is:

- (A) an AP with $d = -16$
- (B) an AP with $d = 4$
- (C) an AP with $d = -4$
- (D) not an AP

Q12. The 11th term of the AP: -5, $-5/2$, 0, $5/2$, ... is:

- (A) -20
- (B) 20
- (C) -30
- (D) 30

Q13. Which term of the AP: 21, 18, 15, ... is zero?

- (A) 6th
- (B) 7th
- (C) 8th
- (D) 9th

Q14. The sum of first five multiples of 3 is:

- (A) 45
- (B) 55
- (C) 65
- (D) 75

Q15. The number of two-digit numbers divisible by 3 is:

- (A) 33
- (B) 31
- (C) 30
- (D) 29

Q16. If the sum of first n terms of an AP is $3n^2 + n$ and its common difference is 6, then its first term is:

- (A) 2
- (B) 3
- (C) 4
- (D) 6

Q17. If the common difference of an AP is 5, then what is $a_{18} - a_{13}$?

- (A) 5
- (B) 20
- (C) 25
- (D) 30

Q18. The first positive term of the AP: -11, -8, -5, ... is:

- (A) 1
- (B) 2
- (C) 3
- (D) 4

Q19. If the sum of 3 consecutive terms of an AP is 24, then the middle term is:

- (A) 6
- (B) 8
- (C) 10
- (D) 12

Q20. The 30th term of the AP: 10, 7, 4, ... is:

- (A) 97
- (B) 77
- (C) -77
- (D) -87

Q21. If the n -th term of an AP is $2n + 1$, then the sum of its first three terms is:

- (A) 6
- (B) 15

- (C) 12
- (D) 21

Q22. How many three-digit numbers are divisible by 7?

- (A) 128
- (B) 129
- (C) 130
- (D) 131

Q23. The sum of first 100 natural numbers is:

- (A) 5000
- (B) 5050
- (C) 5100
- (D) 5150

Q24. What is the common difference of an AP in which $a_{18} - a_{14} = 32$?

- (A) 8
- (B) -8
- (C) 4
- (D) -4

Q25. The sum of first 20 odd natural numbers is:

- (A) 100
- (B) 210
- (C) 400
- (D) 420

Q26. If 18, a, b, -3 are in AP, the $a + b$ is:

- (A) 19
- (B) 7
- (C) 11
- (D) 15

Q27. If a, b, c are in AP, then the arithmetic mean of a and c is:

- (A) $a+c$
- (B) $(a+c)/2$
- (C) ac
- (D) $b/2$

Q28. Which term of the AP: 3, 8, 13, 18, ... is 78?

- (A) 12th
- (B) 13th
- (C) 15th
- (D) 16th

Q29. The sum of first 10 terms of the AP: 2, 7, 12, ... is:

- (A) 245
- (B) 250
- (C) 255
- (D) 260

Q30. The 17th term of an AP exceeds its 10th term by 7. The common difference is:

- (A) 1
- (B) 2
- (C) 3
- (D) 4

Q31. Which term of the AP: 5, 2, -1, -4, ... is -31?

- (A) 11th
- (B) 12th
- (C) 13th
- (D) 14th

Q32. If $a_n = 5n - 3$, then a_{10} is:

- (A) 47
- (B) 50

- (C) 53
- (D) 45

Q33. The sum of first n even natural numbers is:

- (A) $n(n+1)$
- (B) n^2
- (C) $n(n-1)$
- (D) $2n$

Q34. In an AP, if $a = 1$, $a_n = 20$ and $S_n = 399$, then n is:

- (A) 19
- (B) 21
- (C) 38
- (D) 42

Q35. The missing term in the AP: 2, __, 26 is:

- (A) 12
- (B) 14
- (C) 16
- (D) 18

Q36. The sum of all two-digit odd numbers is:

- (A) 2475
- (B) 2530
- (C) 4950
- (D) 5049

Q37. If the 2nd term of an AP is 13 and the 5th term is 25, what is its 7th term?

- (A) 30
- (B) 33
- (C) 37
- (D) 38

Q38. The next term of the AP: $\sqrt{2}$, $\sqrt{8}$, $\sqrt{18}$, ... is:

- (A) $\sqrt{24}$
- (B) $\sqrt{32}$
- (C) $\sqrt{36}$
- (D) $\sqrt{40}$

Q39. If $a_n = 9 - 5n$ is the n -th term of an AP, then its common difference is:

- (A) 5
- (B) -5
- (C) 9
- (D) -9

Q40. Find the 15th term of the AP: $x-y$, $x+y$, $x+3y$, ...

- (A) $x + 27y$
- (B) $x + 28y$
- (C) $x + 29y$
- (D) $x + 30y$

Q41. Two APs have the same common difference. The difference between their 100th terms is 100. The difference between their 1000th terms is:

- (A) 100
- (B) 1000
- (C) 10
- (D) 0

Q42. The 4th term from the end of the AP: -11, -8, -5, ..., 49 is:

- (A) 37
- (B) 40
- (C) 43
- (D) 58

Q43. The sum of first 20 terms of an AP whose n -th term is $3 + 2n$ is:

- (A) 400
- (B) 440
- (C) 480
- (D) 520

Q44. Which term of the AP: 121, 117, 113, ... is its first negative term?

- (A) 31st
- (B) 32nd
- (C) 33rd
- (D) 34th

Q45. In an AP, if $a = 5$, $d = 3$, $a_n = 50$, then find n .

- (A) 15
- (B) 16
- (C) 17
- (D) 18

Q46. If sum of first n terms of an AP is $2n^2 + 5n$, then its 4th term is:

- (A) 17
- (B) 18
- (C) 19
- (D) 20

Q47. The value of x for which $2x$, $x+10$, and $3x+2$ are in AP is:

- (A) 6
- (B) 8
- (C) 10
- (D) 12

Q48. If 7 times the 7th term of an AP is equal to 11 times its 11th term, then its 18th term will be:

- (A) 7
- (B) 11

- (C) 18
- (D) 0

Q49. The sum of integers from 1 to 100 that are divisible by 2 or 5 is:

- (A) 3050
- (B) 3000
- (C) 3500
- (D) 3200

Q50. The first term of an AP is p and the common difference is q , then its 10th term is:

- (A) $p+9q$
- (B) $p-9q$
- (C) $p+10q$
- (D) $q+9p$

Answer Key

Q1: C	Q2: C	Q3: B	Q4: C	Q5: B
Q6: D	Q7: B	Q8: A	Q9: D	Q10: B
Q11: B	Q12: B	Q13: C	Q14: A	Q15: C
Q16: C	Q17: C	Q18: A	Q19: B	Q20: C
Q21: B	Q22: A	Q23: B	Q24: A	Q25: C
Q26: D	Q27: B	Q28: D	Q29: A	Q30: A
Q31: C	Q32: A	Q33: A	Q34: C	Q35: B
Q36: A	Q37: B	Q38: B	Q39: B	Q40: A
Q41: A	Q42: B	Q43: C	Q44: B	Q45: B
Q46: C	Q47: A	Q48: D	Q49: A	Q50: A