THE VILLAGE
INTERNATIONAL SCHOOL

QUESTION BANK - MATHEMATICS GRADE –x

Chapter- 5 ARITHMETIC PROGRESSION:

OBJECTIVE & SUBJECTIVE TYPE QUESTIONS:

1)In the following A.P -9 , -14 , - 19 , -24 ……., $a_{30} - a_{20}$ is
a) 28 b)50
c) – 50 d) none of them.

2) 18^{th} term of the A.P , √ , 3√ , 5√ ,…….
a) 25√ b) 53√
c) 35√ d) 52√

3) The 6^{th} and 17^{th} terms of an A.P are 19 and 41 ,its 40^{th} term is ,
a) 56 b)66
c)77 d)87

4) 9)The common difference of the A.P whose nth term is 3n+2 is
a) 3 b) -3
c) 5 d)-5

5)The sum of first 20 terms of the A.P 1,4,7,10 is
a) 490 b)580
c)590 d)none of them

6) 13)If the nth term of an A.P is (2n+1) , the sum of first n terms of the A.P will be ,
a)n(n-2) b) n(n+3)
c) n (n+2) d)none of them

7)The sum of 2 + 4 + 6+…….+ 200 is,
a) 10100 b)5050
c)10010 d)none of them

8) 13)If the nth term of an A.P is (2n+1) , the sum of first n terms of the A.P will be ,
a)n(n-2) b) n(n+3)
c) n (n+2) d)none of them

9)The sum of 2 + 4 + 6+…….+ 200 is,
a) 10100 b)5050
c)10010 d)none of them

10)The 9^{th} term of an A.P is 449 and 449^{th} term is 9.Then the term which is equal to zero is ,

a) 501th b) 502th

c) 508^{th} d) none of these

11)The sum of first 20 od natural numbers is,

a)100 b) 210

c)400 d) 420

12)The 4^{th} term from the end of the A.P ; -11, -8 , -5 ,……,49 is ,

a) 37 b) 40

c) 43 d)58

13)If 18,a,b,-3 .are in A.P ,then a + b =

a) 19 b) 7

c) 11 d)15

14)If the second term of an A.P is 13 and 5^{th} term is 25,its 7^{th} term is

a)30 b)33

c) 37 d) 38

15)Which term of the A.P; 21,42,63,84,……..is 210?

a) 9^{th} b) 11^{th}

c)12^{th} d)13)

16)The famous mathematician who is associated with finding the sum of first 100 natural numbers is ,

a) Pythagoras b) Issac newton

c) gauss d) Euclid

17)If the nth term of an A.P is 2n+1,then the sum of first n terms of the A.P is ,

a) n(n-2) b)n(n+2)

c) n(n+1) d) n(n- 1)

FILL IN THE BLANKS:

18)If S_n = n(4n+1) is the sum of n terms of an A.P ,then its common difference is ……..

19)The value of x for which 2x, x+10 and 3x+ 2 are in A.P is……..

20)The first 3 terms of the A.P whose nth term is given by $a_n = 3n+ 2$ are …… , ……, ……..

SUBJECTIVE TYPE QUESTIONS:

1) Which term of the A.P: 5,15,25,……130 more than its 31^{st} term? (CBSE -2006 C,2017)

(Ans:44)

2)Find the 6^{th} term from the end of the A.P : 17,14,11,……..,-40. (CBSE 2005)

(Ans: -25)

3)How many numbers of two –digits are divisible by 7? (CBSE 2019)

(Ans:13)

4)Find whether 0 is a term of the A.P ; 40,37, 34,31…….. (CBSE 2014)

(Ans: No)

5)If the sum of n terms of an A.P is $S_n = 3n^2 +5n$, what is its common difference. (CBSE 2008)

(Ans: 6)

6)The sum of first 14 terms of an A.P is 1505 and its first term is 10.Find its 25^{th} term. (CBSE 2012)

(Ans: 370)

7)If the 3^{rd} and 9^{th} terms of an A.P are 4 and -8 respectively, Which term of this A.P is zero?

8)A sum of Rs 280 is to be used to award four prizes. If each prize after the first prize is Rs 20 less than its preceding price, find the value of each of the prizes.

9)The sum of the 4th and 8^{th} terms of an A.P is 24 and the sum of the 6^{th} and 10^{th} terms is 44.Find the first three terms of the A.P.

10)Show that $a_1,a_2,a_3,….a_n…$form an A.P, where a_n is defined as $a_n = 3+ 4n$.