INDIAN SCHOOL AL WADI AL KABIR

WORKSHEET 2026-27

CLASS X **ARITHEMATIC PROGRESSIONS**

Questions of 1 mark each

Q.1	The 10^{th} term of the A.P. $\sqrt{2}, \sqrt{8}, \sqrt{18}, \ldots$ is:			
	A. $\sqrt{162}$	B. $\sqrt{200}$	C. $\sqrt{54}$	D. $\sqrt{94}$
Q.2	If a, b and c are in A.P., then:			
	A. 2a, 3b and 4c are also in A. P.	B. $a-2, b-2$ and $c-2$ are also in A. P.	C. $a/2, b/3$ and $c/4$ are also in A. P.	D. $a+2, b+3$ and $c+4$ are also in A. P.
Q.3	The sum of the first n terms of an A.P. is $50\sqrt{2}$. If the first and the last terms are $\sqrt{2}$ and $19\sqrt{2}$ respectively, then the value of n is:			
	A.10	B.5	C.15	D.20
Q.4	The nth term of the A.P. $-\frac{3}{2}, \frac{3}{2}, \frac{9}{2}, \ldots$ is:			
	A. $\frac{3n}{2}-3$	B. $3n-\frac{9}{2}$	C. $\frac{3n-9}{2}$	D. $3n+\frac{3}{2}$
Q.5	The nth term of the A.P. $-\frac{1}{3}, \frac{4}{3}, 3, \ldots$ is:			
	A. $(5n-9)/3$	B. $(5n-6)/3$	C. $(3n-4)/3$	D. $(3n+2)/3$
Q.6	If $-26, x, 2$ are in A.P., then the value of x is:			
	A.14	B.-13	C. -12	D. -14
Q.7	The common difference of the A.P. $\sqrt{2}, 2\sqrt{2}, 3\sqrt{2}, 4\sqrt{2}, \ldots$ is			
	A. $\sqrt{2}$	B.1	C. $2\sqrt{2}$	D. $-\sqrt{2}$
Q.8	Which of the following sequences is not an A.P.?			
	A. $2, 5/2, 3, 7/2, \ldots$	B. $-1.2, -3.2, -5.2, \ldots$	C.$\sqrt{2}, \sqrt{8}, \sqrt{18}, \ldots$	D. $1^2, 3^2, 5^2, 7^2, \ldots$
Q.9	The number of multiples of 4 lying between 12 and 250 is:			
	A.59	B.59.5	C.60	D.61
Q.10	The nth term of the A.P. $-\frac{1}{3}, \frac{2}{3}, \frac{5}{3}, \frac{8}{3}, \ldots$ is:			

	A. $3n - 4$	B. $n - \frac{4}{3}$	C. $\frac{n-2}{3}$	D. $\frac{n-4}{3}$
Q.11	The nth term of an A.P. is $\sqrt{(2n) + 1}$. Its common difference is:			
	A. $\sqrt{2}$	B. $\sqrt{(2n)}$	C. 1	D. $\sqrt{2} + 1$
Q.12	If a_n represents the nth term of the A.P. $-15/4, -10/4, -5/4, ...$ then the value of $a_{16} - a_{12}$ is:			
	A. 4	B. $5/4$	C. 5	D. $25/4$
Q.13	Three numbers in A.P. have the sum 30. What is its middle term?			
	A. 4	B.10	C. 16	D. 8
Q.14	**Assertion**: Let the positive numbers a, b, c be in A.P., then $1/bc, 1/ac, 1/ab$ are also in A.P. **Reason:** If each term of an A.P. is divided by abc, then the resulting sequence is also in A.P.			
Q.15	**Assertion:** If S_n is the sum of the first n terms of an A.P., then its nth term an is given by $a_n = S_n - S_{n-1}$. **Reason:** The 10th term of the A.P. 5, 8, 11, 14, ... is 35.			
Q.16	**Assertion:** The sum of the series with the nth term, $t_n = (9 - 5n)$ is (465), when no. of terms n = 15. **Reason:** Given series is in A.P. and sum of n terms of an A.P. is $$S_n = \frac{n}{2}[2a + (n-1)d]$$			

ANSWER KEY			
Q.1	B. $\sqrt{200}$	**Q.10**	B. $n - \frac{4}{3}$
Q.2	B. $a - 2, b - 2$ and $c - 2$ are also in A. P.	**Q.11**	A. $\sqrt{2}$
Q.3	B.5	**Q.12**	C. 5
Q.4	B. $3n - \frac{9}{2}$	**Q.13**	B.10
Q.5	B. $(5n - 6)/3$	**Q.14**	A
Q.6	C. -12	**Q.15**	C
Q.7	A. $\sqrt{2}$	**Q.16**	D
Q.8	D. $1^2, 3^2, 5^2, 7^2, ...$		
Q.9	A.59		