INDIAN SCHOOL AL WADI AL KABIR

Class IX, Mathematics

INTRODUCTION TO LINEAR POLYNOMIALS_MCQ WORKSHEET

26.04.2026

OBJECTIVE TYPE (1 Mark)

Q.1. The degree of the polynomial $\left(\sqrt{3}\,y - \frac{y^2}{2}\right)^2$ is

	A	2	**B**	$\sqrt{3}$	**C**	1	**D**	4

Q.2. The sum of two numbers is 66. One number is 6 more than twice the other number, then the two numbers are

	A	58 and 8	**B**	46 and 20	**C**	32 and 34	**D**	56 and 10

Q.3. The y-intercept of the line y = 3x – 2 is

	A	-2	**B**	3	**C**	2	**D**	– 3

Q.4. The value of the polynomial $5x^2 - 3x + 7$ if $x = -\mathbf{4}$

	A	79	**B**	75	**C**	99	**D**	92

Q.5. Identify univariate polynomial from the given expressions

	A	$x^2 + 5x + 1$	**B**	$5y^3 + 2t - 1$	**C**	$\frac{1}{2}s^4 - x + 1$	**D**	$5x + 9u + 8$

Q.6. Serah has 3 times as many ₹10 notes as she has ₹50 notes. If she has a total of ₹880, how many notes does she have of each type?

	A	22, 66	**B**	11, 33	**C**	50, 150	**D**	12, 36

Q.7. In a pattern, pentagons are arranged in a line. Each new stage is formed by adding a fixed number of pentagons to the previous stage. The number of pentagons in the first five stages is shown below:

Stage	1	2	3	4	5
No. of pentagons	4	7	10	13	16

Then the number of pentagons in 8^{th} stage is

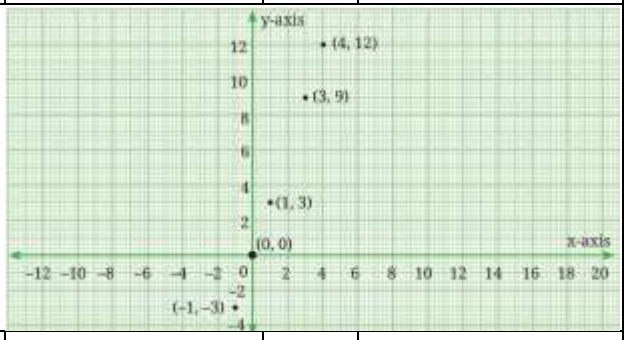
	A	25	**B**	22	**C**	28	**D**	31

Q.8. The linear polynomial for the previous question(7) in stage n is

	A	$2n - 1$	**B**	$3n$	**C**	$3n + 1$	**D**	$4n + 5$

Q.9. A hostel charges a fixed rent of ₹5000 per month for accommodation and includes the first 10 days of stay. After that, an additional charge of ₹450 per day is applied. If a student stays in the hostel for 25 days in a month, what will be the total charge?

	A	₹11250	**B**	₹16250	**C**	₹5450	**D**	₹11750

Q.10.	If the point (3, 4) lies on the graph of the equation 3y = ax + 7, then the value of a is							
	A	-7	**B**	$\frac{3}{5}$	**C**	$\frac{5}{3}$	**D**	4
Q.11.	For the given graph, the equation of line is 							
	A	$x = 3y$	**B**	$y = 3x$	**C**	$y = x$	**D**	$y = -2x$
Q.12.	For the line $y = ax$, which condition on 'a' makes the graph steeper?							
	A	a > 1	**B**	a > 0	**C**	a < 1	**D**	a ≥ 0
Q.13.	The slope of a line $2x - 2\sqrt{3}y - \sqrt{3} = 0$ is							
	A	$-2\sqrt{3}$	**B**	$\frac{-1}{2}$	**C**	$\frac{-1}{2\sqrt{3}}$	**D**	$\frac{1}{\sqrt{3}}$
	ASSERTION AND REASONING							
	DIRECTION: A statement of **Assertion (A)** is followed by a statement of **Reason (R).** Choose the correct option. (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A). (b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A). (c) Assertion (A) is true but Reason (R) is false. (d) Assertion (A) is false but Reason (R) is true.							
Q.14.	Assertion (A): The slope of the line $x + 7y = 0$ is $\frac{1}{7}$ and y-intercept is 0. Reason (R): The slope of the line $6x + 3y - 5 = 0$ is -2 and y-intercept is $\frac{5}{3}$.							
Q.15.	Assertion (A): -7 is a constant polynomial . Reason (R): Degree of a constant polynomial is zero.							

ANSWERS

	Q.1.	D	**Q.2.**	B	**Q.3.**	A	**Q.4.**	C
	Q.5.	A	**Q.6.**	B	**Q.7.**	A	**Q.8.**	C
	Q.9.	D	**Q.10.**	C	**Q.11.**	B	**Q.12.**	A
	Q.13.	D	**Q.14.**	d	**Q.15.**	a		

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