



INDIAN SCHOOL AL WADI AL KABIR

Pre-Mid Term Practice Questions (2026-27)

Class: IX

Sub: MATHEMATICS (041)

Date: 11-05-2026

Section A (1 mark each)

Q.1.	In which quadrant will the point lie if its ordinate is 4 and abscissa is -5							
	A	I Quadrant	B	II Quadrant	C	III Quadrant	D	IV Quadrant
Q.2.	The degree of a non-zero constant polynomial is							
	A	1	B	not defined	C	any real no	D	0
Q.3.	The distance of the point P(-6, 8) from the origin is							
	A	8 units	B	2 units	C	10 units	D	6 units
Q.4.	Two towns are located at A(-6, 2) and B(4, 10). A new railway halt is planned exactly halfway between the two towns. The coordinates of the railway halt is							
	A	(-2, 12)	B	(-1, 6)	C	(2, 6)	D	(1, 4)
Q.5.	Which of the following points P(0, 3), Q(1, 0), R(0, -1), S(-5, 0), T(1, 2) do not lie on the X-axis?							
	A	P and R only	B	Q and S only	C	P, R and T	D	Q, S and T
Q.6.	A car is 300 km away from the destination and moves closer to the destination at 60 km per hour. The linear expression that represents the distance remaining after x hours is							
	A	$300 + 60x$	B	$300x - 60$	C	$300x + 60$	D	$300 - 60x$
Q.7.	The centre of a circle is at (2, 0). If one end of a diameter is at (6, 0), then the other end is at							
	A	(0, 0)	B	(4, 0)	C	(-2, 0)	D	(-6, 0)
Q.8.	If the coordinates of two points are P(-2, 3) and Q(-3, 5), then (abscissa of P) - (abscissa of Q) is							
	A	-1	B	-5	C	1	D	-2

Q.9.	Which of the following is a cubic polynomial?							
	A	x^3+x-1	B	$3x^2-7x$	C	$x+y+3$	D	x^4+x^3+7
Q.10.	The value of the polynomial $5x^2-3x+7$ at $x=-1$ is							
	A	9	B	15	C	12	D	5
<p>DIRECTION: In the following question, a statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option</p> <p>(a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)</p> <p>(b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A)</p> <p>(c) Assertion (A) is true but reason (R) is false.</p> <p>(d) Assertion (A) is false but reason (R) is true.</p>								
Q.11.	<p>Assertion(A): Abscissa of a point is positive in the quadrant III.</p> <p>Reason(R): If P (7, -5) is a point on the graph, and a perpendicular PM is drawn from P to y-axis, then the coordinates of M are (0, -5).</p>							
Q.12.	<p>Assertion(A): Every monomial is a linear polynomial.</p> <p>Reason(R): A monomial has only one term.</p>							
Section B (2 marks each)								
Q.13.	If M (3, a) is the midpoint of the line segment joining the points P (b, 5) and Q (-1, 1), find the values of a and b.							
Q.14.	<p>A mobile repair shop charges a fixed service fee of ₹150 plus ₹50 for every hour spent on repairs.</p> <p>(i) Identify the linear pattern representing the total cost for h hours.</p> <p>(ii) Calculate the total cost if the repair takes 3 hours.</p>							
Q.15.	<p>Find the values of m and n if:</p> <p>(i) $(2m-3, 15) = (7, 3n+6)$</p> <p>(ii) $(m+4, -2n) = (10, m+n)$</p>							

Q.16.	A gardener is preparing a rectangular patch. The length of the patch is 5 meters more than double its width. If the gardener uses 34 meters of fencing to go exactly once around the entire perimeter of the patch, find the width.
Q.17.	A drone flies from its base at A (2, -3) to a patient at B (-4, 5). Can it complete the round trip if the drone's battery only covers 18 km? Explain.
Section C (3 marks each)	
Q.18.	Points A (5, 3), B (-2, 3) and D (5, -4) are three vertices of a square ABCD. Plot these points on a graph paper and hence find the coordinates of the vertex C.
Q.19.	<p>Find the coordinates of the point:</p> <p>(i) which lies on x and y axes both.</p> <p>(ii) whose ordinate is -7 and which lies on the y-axis.</p> <p>(iii) whose abscissa is 8 and which lies on x-axis.</p> <p>(iv) whose abscissa is 4 units to the left of the origin and ordinate is 4.</p> <p>(v) which lies in the 3rd quadrant at a distance of 3 units from both the axis.</p> <p>(vi) whose mirror image with respect to X axis is (4, -2)</p>
Q.20.	Check whether the points (0, 0), (2, 2), (5, 5) are collinear or not by distance formula.
Q.21.	<p>A water tank contains 1,200 liters of water. Due to a small leak, it loses 15 liters of water every hour.</p> <p>(a) How much water will be left in the tank after (i) 5 hours (ii) 12 hours (iii) 24 hours?</p> <p>(b) Express the amount of water remaining as a linear pattern for the nth hour.</p>
Q.22.	The sum of three consecutive even integers is 126. Find the integers.

Section D (4 marks each) Case Study Based Questions

Q.23. A travel company is planning a cultural heritage tour across four historic Indian cities represented on a coordinate map. Each city is marked using its geographical position on a Cartesian plane, where the x-axis represents East–West direction (Latitude) and the y-axis represents North–South direction (Longitude).

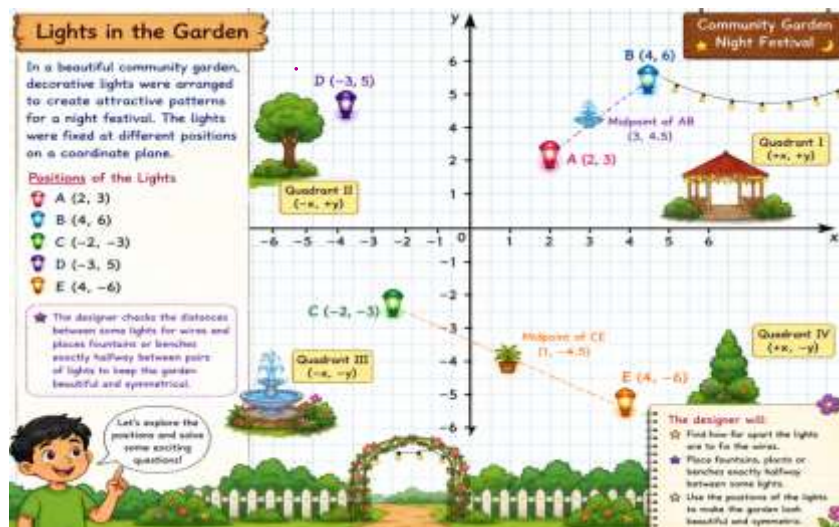
The tour begins from Lucknow located at (2,4). From there, the tourists travel to Bhuj at (–5,3) then move to Nashik at (–2, –3) and finally reach Puri at (5, –4).

Based on the above information, answer the following questions.

- i) Find the Quadrants of the places Bhuj, Puri and Nashik (1m)
- ii) Find the distance of Lucknow from the Origin. (1m)
- iii) Find the distance between Nashik and Lucknow. (2m)
- iv) Find the midpoint of Nashik and Puri. (2m)

Q.24. In a beautiful community garden, decorative lights were arranged to create attractive patterns for a night festival. The lights were fixed at different positions on a coordinate plane: A(2, 3), B(4, 6), C(-2, -3), D(-3, 5), and E(4, -6). The gardener planned to place small fountains between certain pairs of lights to maintain symmetry in the garden. While observing the arrangement, the students noticed that some lights were placed in different sections of the coordinate plane depending on whether their coordinates were positive or negative.

Using the positions of these decorative lights, answer the following questions by referring only to the coordinates mentioned in the graph for the points A, B, C, D and E (The coordinates are not to the scale)



- i) Identify the quadrant of points C and E. (1m)
- ii) A small fountain is to be placed exactly halfway between A (2, 3) and B (4, 6). Find its position. (1m)
- iii) Check the points B, A and C are collinear or not? (2m)
- iv) Find the distance between lights C (-2, -3) and D (-3, 5). (2m)

ANSWER

Answers	1	B	2	D	3	C	4	B
	5	C	6	D	7	C	8	C
	9	A	10	B	11	d	12	d
	13	a=3, b=7	14	(i) $150 + 50h$ (ii) ₹300	15	(i) $m=5, n=3,$ (ii) $m= 6, n= -2$	16	width=4m
	17	No, Total distance = $10+10=20\text{km}$	18	(-2, -4)	19	(i)(0, 0) (ii) (0, -7) (iii) (8,0) (iv) (-4, 4) (v) (-3,-3) (vi) (4, 2)	20	Collinear
21	(i)1125 litres (ii) 1020 litres (iii)840 litres $A(n) = 1200 - 15 n$	22	40, 42, 44	23	(i) Bhuj: II, Puri: IV, Nasik: III (ii) $2\sqrt{5}$ units (iii) $\sqrt{65}$ units (iv) $(\frac{3}{2}, \frac{-7}{2})$	24	(i)C: III, E:IV (ii)(3, 4.5) (iii) Collinear (iv) $\sqrt{65}$ units	
