

KENDRIYA VIDYALAYA BADDOWAL CANTT

Summer Vacation Holiday Homework
Class IX - Mathematics

Chapters: Coordinate Geometry & Polynomials

Instructions:

Complete all questions neatly in a separate notebook.

Write step-by-step solutions.

Revise concepts before solving.

Maintain proper handwriting.

Draw graphs wherever required.

Submit after summer vacation.

1 Mark Questions (20×1=20)

Q1. Write the coordinates of the origin.

Q2. In which quadrant does the point $(-3, 4)$ lie?

Q3. Find the abscissa of the point $(5, -2)$.

Q4. Find the ordinate of the point $(-7, 3)$.

Q5. Name the x-axis and y-axis.

Q6. Write the coordinates of a point on x-axis.

Q7. Find the value of p if $(p, 0)$ lies on y-axis.

Q8. Define a polynomial.

Q9. Give an example of a linear polynomial.

Q10. What is the degree of polynomial $5x^2 + 3x + 1$?

Q11. Find the constant term in $4x^3 + 2x + 7$.

Q12. Identify the coefficient of x in $3x^2 + 5x + 1$.

Q13. Is 7 a polynomial?

Q14. Write one example of a binomial.

Q15. What is the degree of constant polynomial?

Q16. Write standard form of a polynomial.

Q17. Identify number of terms in $2x + 3y + 5$.

Q18. Is 0 a polynomial?

Q19. Write one example of quadratic polynomial.

Q20. What is the coefficient of x^2 in $9x^2 + 4x + 6$?

2 Marks Questions (10×2=20)

Q1. Plot the point (2, 3) on a graph paper.

Q2. Find in which quadrant the point (-5, -6) lies.

Q3. Write coordinates of a point on y-axis.

Q4. Find coordinates of a point equidistant from both axes.

Q5. Classify the polynomial $3x^2 + 2x + 1$ based on degree.

Q6. Find the degree of $7x^3 + 2x^2 + x + 9$.

Q7. Write all terms of polynomial $5x^2 + 4x + 3$.

Q8. Identify constant, linear and quadratic terms in $4x^2 + 3x + 2$.

Q9. Write two examples of cubic polynomials.

Q10. Check whether $2x + 3$ is a polynomial.

3 Marks Questions (5×3=15)

Q1. Plot the points (2,2), (-2,2), (-2,-2), (2,-2) and identify the figure formed.

Q2. Find the coordinates of points lying on x-axis and y-axis.

Q3. Classify the polynomial $5x^3 + 3x^2 + 2x + 1$ based on number of terms and degree.

Q4. Find the value of polynomial $2x^2 + 3x + 1$ at $x = 2$.

Q5. Write all coefficients of polynomial $4x^3 - 3x^2 + 2x - 5$.

4 Marks Questions (5×4=20)

Q1. Plot the points (1,2), (3,4), (-2,-3) and (-4,2) on graph paper and verify their positions.

Q2. Find whether the points (2,3), (2,-3), (-2,-3), (-2,3) form a square.