



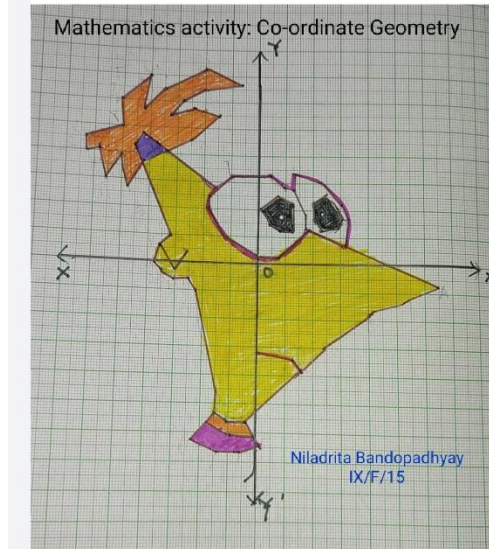
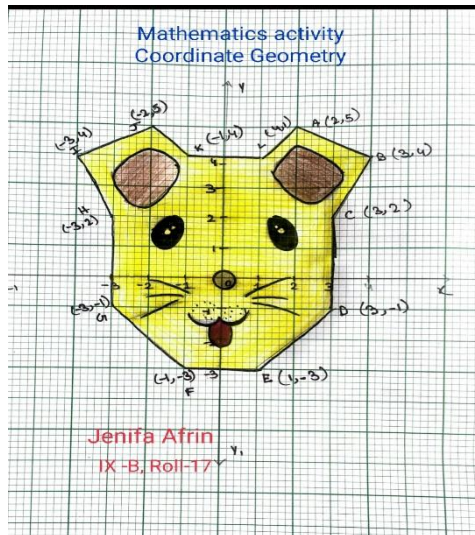
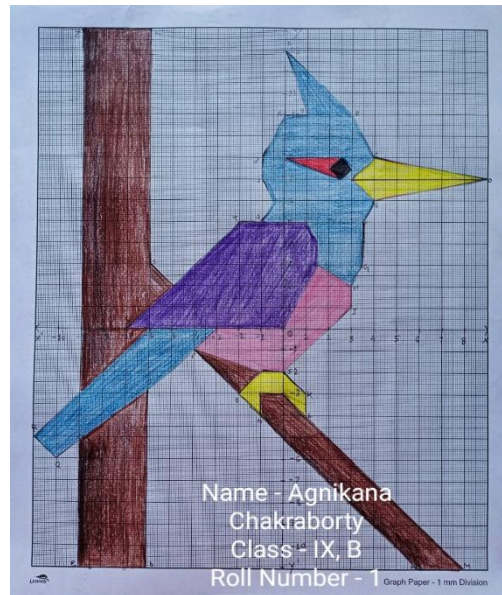
SATISH CHANDRA MEMORIAL SCHOOL
CLASS: IX MATHEMATICS SUMMER VACATION HOME WORK 2025

PART - I

ACTIVITY-II (Ch: Co-Ordinate Geometry)

Theme: FINDING THE HIDDEN PICTURE BY PLOTTING AND JOINING THE COORDINATES IN A PLANE

These are some examples below. Students can apply their own creative idea to create the art form.



Instruction

- Complete the colourful activity in Math Lab copy. (Use 2mm graph paper)
- Write your experience about this activity
- Last date of submission: 12.06.25

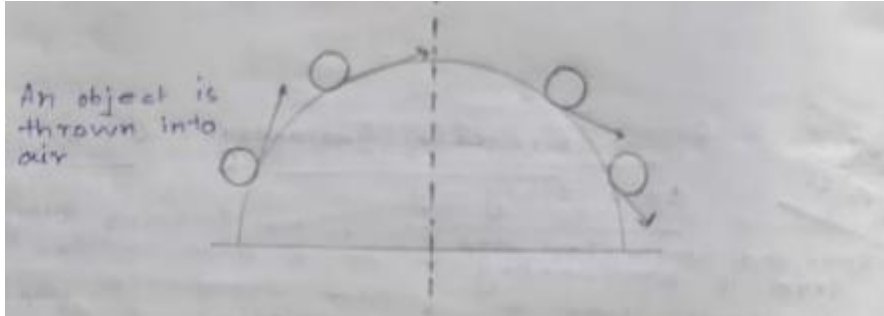


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PART -II

- **Note: Complete Part -II in A4 pages. Last date of submission: 12.06.25**

CASE STUDY ON POLYNOMIAL -APPLICATION OF PARABOLAS-PROJECTILE MOTION:

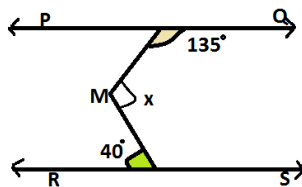


An object is thrown or projected into the air, subject to only the acceleration of gravity is called projectile and its path is called its trajectory. This curve path was shown by Galileo to be a parabola. Parabola is represented by a polynomial. If the polynomial to represent the distance covered is $p(t) = -5t^2 + 40t + 1.2$, then answer the following questions.

- What is the degree of the polynomial $p(t)$?
- Find the height of projectile 4 seconds after it is launched?
- The polynomial is classified as _____ on the basis of number of terms.
- What is the name of the polynomial on the basis of degree?
- If the equation of parabola is given by , $p(t) = t^2 - 5t + 6$, find its factor?

SUBJECTIVE QUESTIONS

- Is 0 a rational number? Justify
- Find a rational number between $\frac{-2}{5}$ and $\frac{3}{8}$
- Represent $\sqrt{3}$ on number line.
- Find the value of a for which $(x-a)$ is a factor of the polynomial $f(x)=x^5 - a^2x^3 + 2x + a - 3$
- If $x+y+z=9$, $xy+yz+zx = 23$ then find $x^3 + y^3 + z^3 - 3xyz$
- If $(x - 3)$ and $(x - \frac{1}{3})$ are both factors of $ax^2 + 5x + b$, then show that $a = b$
- Factorise: $2(5x - \frac{1}{x})^2 - 3(5x - \frac{1}{x}) - 2$
- In the figure PQ || RS, find the value of x



- In a ΔABC , $\angle A + \angle B = 110^\circ$, $\angle C + \angle A = 135^\circ$. Find $\angle A$.
- Find x if $AB \parallel CD \parallel EF$.

