



B.K. BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL



PRE-MID TERM 2026-27 MATHEMATICS: SET 1

Class: IX
Date: 23.07.26
Admission no:

Time: 1hr
Max Marks: 25
Roll no:

General Instructions:

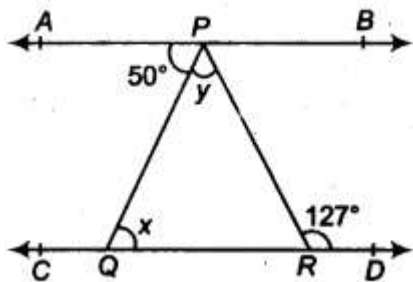
1. This Question Paper has 4 Sections A, B, C and D.
2. Section A has 5 MCQs carrying 1 mark each
3. Section B has 3 questions carrying 02 marks each.
4. Section C has 2 questions carrying 03 marks each.
5. Section D has 2 questions carrying 04 marks each.
6. All Questions are compulsory.

SECTION A

1. What is the degree of $x^2 + 3x^3 - 2$?
(a) 1 (b) 2 (c) 3 (d) None of these 1m
2. Which one of the following is a cubic polynomial?
(a) $4x+7$ (b) $1000x$ (c) $4-x^3$ (d) None of these 1m
3. If two lines are parallel and intersected by a transversal ,then both consecutive angles are:
(a) Equal (b) Supplementary (c) Complementary (d) None of these 1m
4. If the sum of two adjacent angles is _____, then the non-common arms of the angles form a line.
(a) 180° (b) 90° (c) 360° (d) None of these 1m
5. If two lines intersect each other, then the _____ angles are equal.
(a) Linear pair (b) Vertically opposite (c) Adjacent (d) None of these

SECTION B

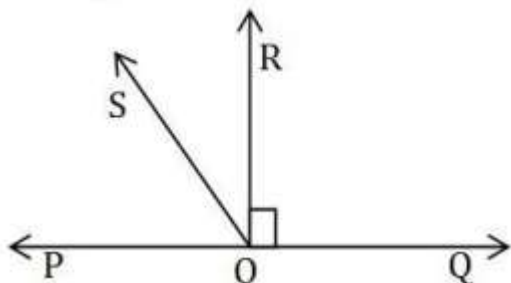
6. Find the values of x and y if $AB \parallel CD$. 2m



7. Find the value of k , if $(x-1)$ is a factor of $4x^3+3x^2-4x+k$ 2m
8. Evaluate by using suitable identities: 2m
 (a) 102^3
 (b) 99^2

SECTION C

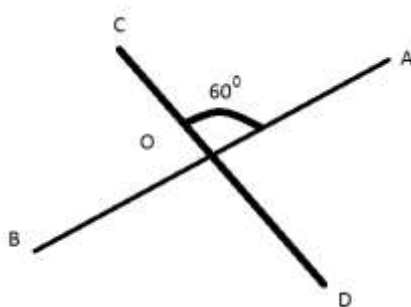
9. In the given figure, PQ is a line. Ray OR is perpendicular to line PQ. OS is another ray lying between rays OP and OR. Prove that $2\angle ROS = (\angle QOS - \angle POS)$ 3m



10. Factorise $x^3 - 2x^2 - x + 2$. 3m

SECTION D

11. Two roads AB and CD intersect each other at point O as shown in the figure. One of the angles formed is 60° . 4m



the angles formed is 60° .

Answer the following:

- (i) Find x .
 - (ii) Find y . Also write the statement of the property/theorem used to find the value of y .
 - (iii) What will be the sum of x and y ?
- OR

Write the sum of all angles at a point in a plane.

12.

4m

The length, breadth and height of a cuboid are given by the expressions $2x - 1$, $3x + 2$ and $4x$ respectively.

Answer the following:

- (i) Write the area of the base.
- (ii) Write down the volume of the cuboid.
- (iii) What is the sum of all 12 edges of the cuboid?

OR

What is the perimeter of the base if $x = 2$?

****BEST OF LUCK****