



INDIAN SCHOOL SOHAR
PERIODIC TEST III (2018-19)
MATHEMATICS

CLASS: IX
DATE: 09/01/19

SET 1
MAX. MARKS: 20
TIME: 45 MIN

GENERAL INSTRUCTIONS:

- All questions are compulsory.
- The question paper consists of **9** questions divided into 4 sections A, B, C, D. Section A comprises of **3** questions of **1 mark** each, section B comprises of **2** questions of **2 marks** each, section C comprises **3** questions of **3 marks** each and section D comprises of **1** question of **4 marks**.
- Use of calculators not permitted.

SECTION A

1. Evaluate $(81)^{0.16} \times (81)^{0.09}$.

OR

Find an irrational number between 3 and 4

2. In a cyclic quadrilateral PQRS, if $\angle P - \angle R = 50^\circ$ then find the measure of $\angle P$ and $\angle R$.
3. Name the quadrant or axis in which the following points lie
- (i) (-3,0) (ii) (4,-1).

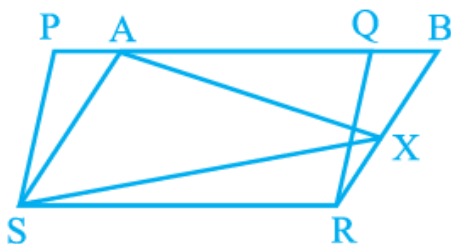
SECTION B

4. P is any point on the median AD of triangle ABC. Show that $\text{ar}(\triangle APB) = \text{ar}(\triangle ACP)$.

OR

In the figure, PQRS and ABRS are two parallelograms and X is any point on side BR.

Show that $\text{ar}(\triangle AXS) = \frac{1}{2} \text{ar}(\text{PQRS})$



5. The sides of a triangle are y , $y+1$, $2y-1$ and its area is $y\sqrt{10}$. What is the value of y ?

SECTION C

6. Construct a triangle ABC in which $BC=4\text{cm}$, $\angle B=30^\circ$ and $AB+AC=6\text{cm}$.

7. Using factors theorem, show that $x-y$ is factor of $x(y^2-z^2)+y(z^2-x^2)+z(x^2-y^2)$

OR

Factorize $64x^3-125y^3$

8. Prove that equal chords of a circle subtend equal angles at the centre.

OR

If two intersecting chords of a circle make equal angles with diameter passing through their point of intersection, prove that the chords are equal.

SECTION D

9. Draw the graph of equation $3x+y= 9$. Also, find the points where the line intersect x-axis and y-axis. Also find the area of triangle formed.

OR

The Sum of the digits of a two digit number is 12. The number obtained by interchanging the digits exceeds the original number by 18. Find the original number.

-----THE END-----



INDIAN SCHOOL SOHAR
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MATHEMATICS

CLASS: IX
DATE: 09/01/19

SET 2
MAX. MARKS: 20
TIME: 45 MIN

GENERAL INSTRUCTIONS:

- All questions are compulsory.
- The question paper consists of **9** questions divided into 4 sections A, B, C, D. Section A comprises of **3** questions of **1 mark** each, section B comprises of **2** questions of **2 marks** each, section C comprises **3** questions of **3 marks** each and section D comprises of **1** question of **4 marks**.
- Use of calculators not permitted.

SECTION A

1. Evaluate $(625)^{0.16} \times (625)^{0.09}$.

OR

Find an irrational number between 4 and 5.

2. In a cyclic quadrilateral PQRS, if $\angle P - \angle R = 100^\circ$ then find the measure of $\angle P$ and $\angle R$.
3. Name the quadrant or axis in which the following points lie
 (i) (0,-9) (ii) (-3,4).

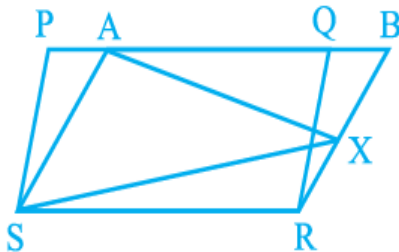
SECTION B

4. The sides of a triangle are m , $m+1$, $2m-1$ and its area is $m\sqrt{10}$. What is the value of m ?
5. P is any point on the median AD of triangle ABC. Show that $\text{ar}(\triangle APB) = \text{ar}(\triangle APC)$.

OR

In the figure, PQRS and ABRS are two parallelograms and X is any point on side BR.

Show that $\text{ar}(\triangle AXS) = \frac{1}{2} \text{ar}(PQRS)$



SECTION C

6. Construct a triangle ABC in which $BC = 5.7\text{cm}$, $\angle B = 30^\circ$ and $AB - AC = 3\text{cm}$.
7. Using factors theorem, show that $y-x$ is factor of $y(z^2 - x^2) + z(x^2 - y^2) + x(y^2 - z^2)$

OR

Factorize $8x^3-125y^3$

8. Prove that equal chords of a circle subtend equal angles at the centre.

OR

If two equal chords of a circle intersect within the circle, prove that the line joining the point of intersection to the centre makes equal angles with the chords.

SECTION D

9. Draw the graph of equation $3x+y= 6$. Also, find the points where the line intersect x-axis and y-axis. Also find the area of triangle formed.

OR

A number consists of two digits. The digit at tens place is twice the digit in units place. The number formed by reversing the digit is 27 less than the original number. Find the original number

-----THE END-----