

Parakshit Yadav

9-B PERIODICAL ASSESSMENT - 1

Roll. no - 35

2022-2023

CLASS : IX
TIME : 2 HRS.

SUB. : MATHEMATICS (SET-A)
M.M. : 50

General Instructions :

1. The paper carries 24 questions.
2. Section A carry 1-mark questions.
3. Section B carries 2 marks Questions.
4. Section C carries 3 marks Questions.
5. Section D carries 4 marks Questions.
6. All questions are compulsory.

SECTION - A

- Q.1 What are the coordinates of a point whose ordinate is 5 and lying on the y-axis?
- Q.2 Find the value of $(16^{1/2})^{1/2}$
- Q.3 At what point the axes intersect?
- Q.4 Write Rationalising factor of $(\sqrt{3} + \sqrt{5})$
- Q.5 What is the measure of an angle which is complement to itself?
- Q.6 Ordinates of all points on x-axis is _____.
- Q.7 The perpendicular distance of the point (3,7) from y-axis is _____.
- Q.8 0.578578578 ... is a/an _____ number (Rational/Irrational)
- Q.9 If two supplementary angles are in ratio 3:2 then find the measure of these angles.
- Q.10 Reflex angle of 116° is _____.

SECTION - B

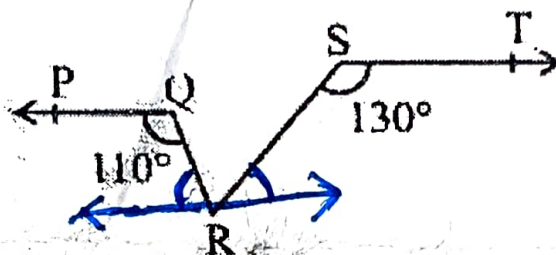
Q.11 Find two irrational numbers between $\frac{1}{4}$ and $\frac{3}{4}$

Q.12 Prove vertically opposite angles are equal.

Q.13 If the perpendicular distance of a point P from x-axis is 6 units and foot of the perpendicular lies on negative direction of x-axis at 3 units from y-axis, then find the coordinates of P.

Q.14 Simplify $2\sqrt{48} + 5\sqrt{3}$

Q.15 In the Figure, if $PQ \parallel ST$, $\angle PQR = 110^\circ$ and $\angle RST = 130^\circ$, find $\angle QRS$



SECTION - C

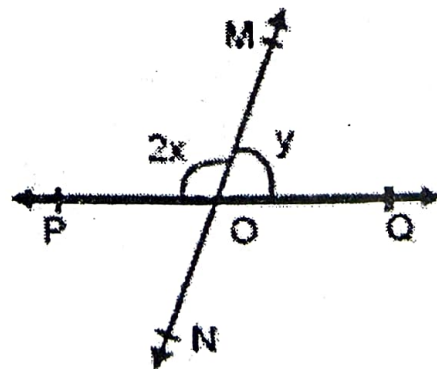
Q.16 In which quadrant or on which axis do each of the points $(-2,4)$, $(3,-1)$, $(-4,0)$, $(2,3)$, $(0,2.5)$, $(-5,-5)$ lie?

Q.17 ~~Three~~ three points are A $(-3,7)$, B $(-7,5)$ and C $(-9,5)$ then what is (abscissa A) - (abscissa B) + (ordinate C)

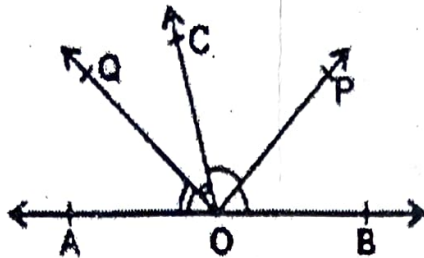
Q.18 In the given figure, \overline{PQ} and \overline{MN} intersect at O.

(a) Determine y, when $x = 60^\circ$.

(b) Determine x, when $y = 40^\circ$.



- Q.19 In figure, OP bisects $\angle BOC$ and OQ bisects $\angle AOC$.
Prove that $\angle POQ = 90^\circ$



- Q.20 Find the value of

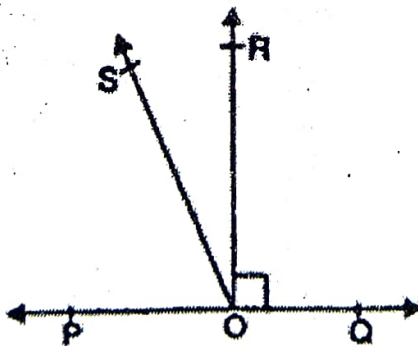
$$\frac{(0.6)^0 - (0.1)^{-1}}{\left(\frac{3}{8}\right)^{-1} \left(\frac{3}{2}\right)^3 + \left(-\frac{1}{3}\right)^{-1}}$$

- Q.21 Determine rational numbers p and q if

$$\frac{7 + \sqrt{5}}{7 - \sqrt{5}} = p - 7\sqrt{5}q$$

SECTION - D

- Q.22 In the Figure, POQ is a line. Ray OR is perpendicular to line PQ. OS is another ray lying between rays OP and OR. Prove that $\angle ROS = \frac{1}{2}(\angle QOS - \angle POS)$

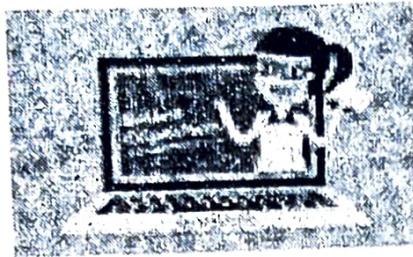


Q.23 Show that

$$\frac{1}{3-\sqrt{8}} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{\sqrt{7}-\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}} + \frac{1}{\sqrt{5}-2} = 5$$

Q.24 Case study-based question

Education during Covid-19 has moved towards e-learning.



Ms. Ambika, a Class IX teacher conducts an online MCQ test at the end of every chapter with pre-scheduled dates. This helps her to check the performance of students instantly and to know the area of improvement in a specific chapter. Take a look at the following questions she designed for her students and answer them.

- i) Identify a rational number among the following numbers:
(a) $2+\angle 2$, (b) $2\angle 2$, (c) 0, (d) π
- ii) All integers are
(a) Whole numbers (b) Irrational Numbers
(c) rational Numbers (d) none of these
- iii) What is the p/q form of 0.237237237...
(a) $237/999$ (b) $235/999$ (c) $47/198$ (d) $237/900$
- iv) The sum or difference of a rational and an irrational number is
(a) Natural (b) Irrational (c) rational (d) whole
