JSUNIL TUTORIAL ,MATHS &SCIENCE

Comprehensive Test Series- 5
Lines and Angles

TIME: 1 hr.

General Instructions:

- All Questions are compulsory.
- Marks are given alongwith the questions individually.
- Use of calculator is not permitted.

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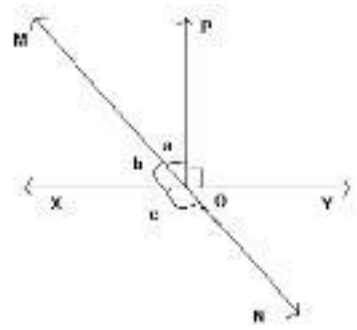
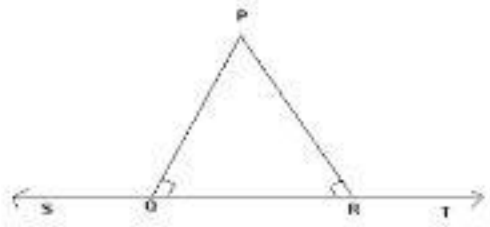
1. Lines XY and MN intersect at O. If $\nabla POY = 90^0$ and a : b = 2 : 3, find c. 3 Marks

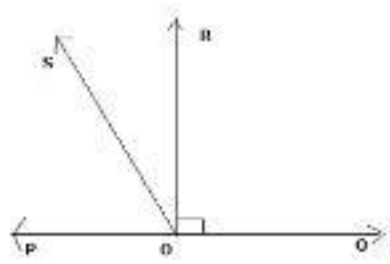


2. $\nabla PQR = \nabla$ PRQ, then prove that ∇ PQS = ∇ PRT.

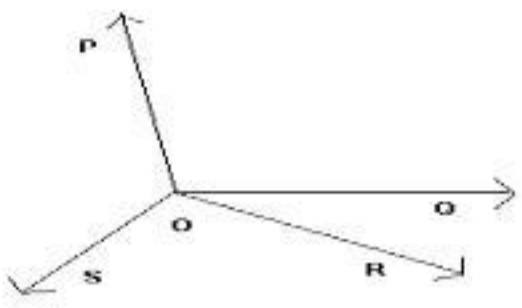


3. POQ is line. Ray OR is perpendicular to line PQ. OS is another ray lying between rays OP and OR. Prove that

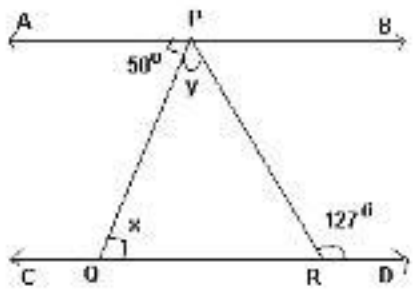
$\nabla ORS = \frac{1}{2}(\nabla QOS - \nabla POS)$.



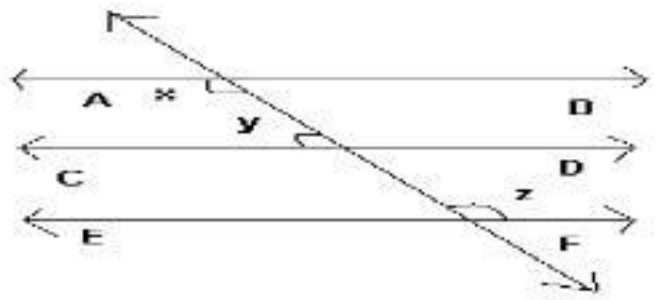
4. OP, OQ, OR and OS are four rays. Prove that ∇ POQ + ∇ QOR + ∇ SOR + ∇ POS = 360^0.



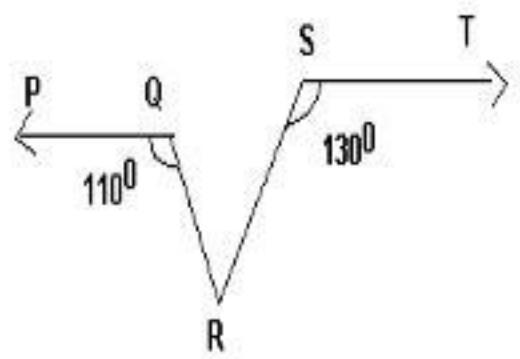
5. If AB II CD, ∇ APQ = 50^0 and ∇ PRD = 127^0, find x and y.



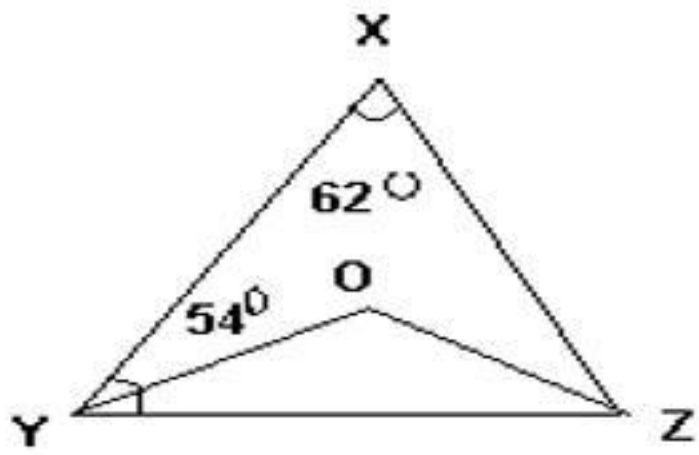
6. If AB II CD, CD II EF and y : z = 3:7, find x.



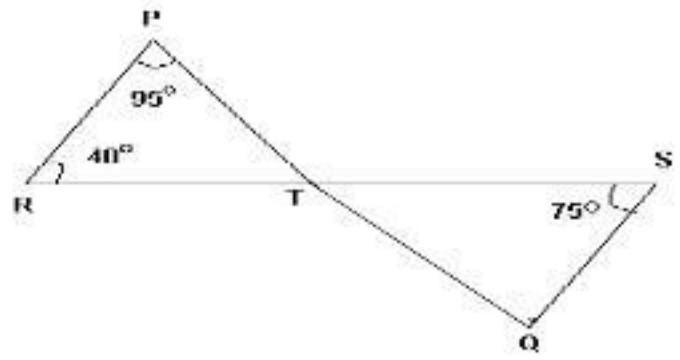
7. If PQ II ST, ∇ PQR – 110^0 and ∇ RST = 130^0, find∇ QRS.



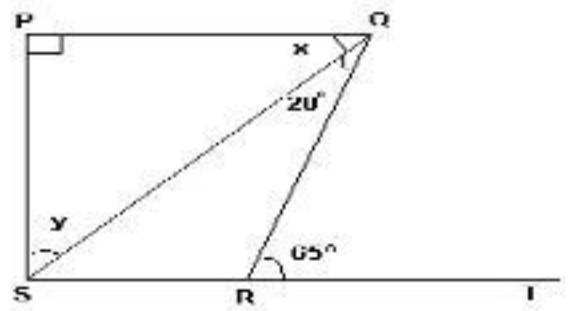
8. ∇ X = 62^0, ∇ XYZ = 54^0. IF YO and ZO are the bisector of ∇ XYZ and ∇ XZY respectively of ΔXYZ, find ∇ OZY and ∇ YOZ.



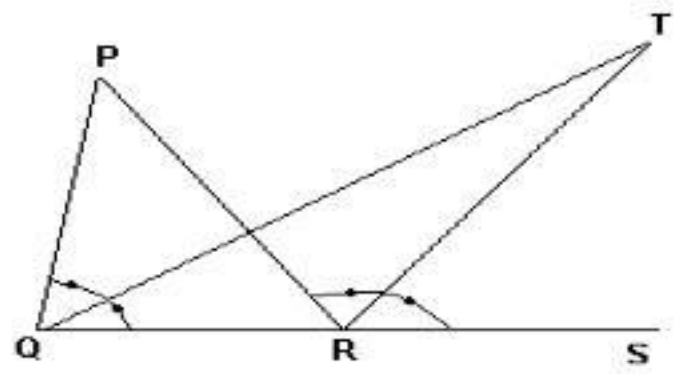
9. If lines PQ and RS Intersect at point T, such that ∇ PRT = 40^0, ∇ RPT = 95^0 and ∇ TSQ = 75^0, find ∇ SQT.



10. If PQ $\perp$ PS, PQ II SR, ∇ SQR = 28^0 and ∇ QRT = 65^0 then the values of x and y.



11. The side QR of ΔPQR is produced to a point S. If the bisectors of ∇ PQR and ∇ PRS met at point T, then prove that ∇ QTR = $\frac{1}{2}$ ∇ QPR.



12. The sum of the angles of a triangle is 180^0.