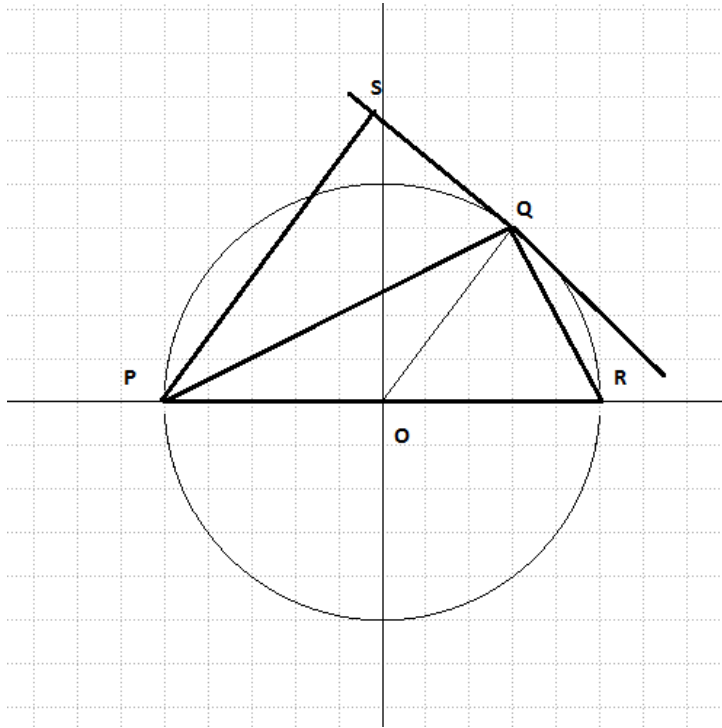


Answer on Question #46550 – Math - Geometry

Triangle PQR is inscribed in a circle with PR as a diameter. The perpendicular from P to the tangent at Q meets the tangent at S. Prove that PQ bisects angle SPR.

Solution.



$PO = QO$ so $\angle PQO = \angle QPR$

$\angle OQS = 90^\circ$ so $PS \parallel OQ$

Thus $\angle QPS = \angle PQO = \angle QPR$ and it proves that PQ bisects angle SPR.