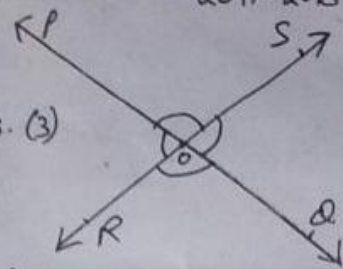
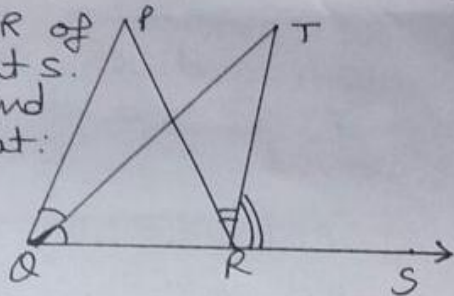


1. In the given figure, lines PQ and RS intersected at O. If $\angle POR : \angle ROQ = 5:7$, find all the angles. (3)

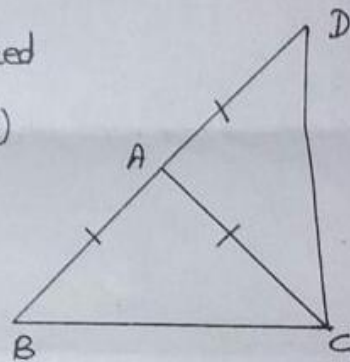


2. Prove that the sum of the angles of a triangle is 180° . (3)

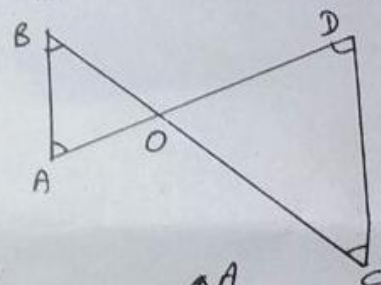
3. In the figure, the side QR of $\triangle PQR$ is produced to a point S. If the bisectors of $\angle PQR$ and $\angle PRS$ meet at T, prove that: $\angle QTR = \frac{1}{2} \angle QPR$. (3)



$\triangle ABC$ is an isosceles \triangle in which $AB = AC$. Side BA is produced to D such that $AD = AB$. Show that $\angle BCD$ is a right angle. (3)

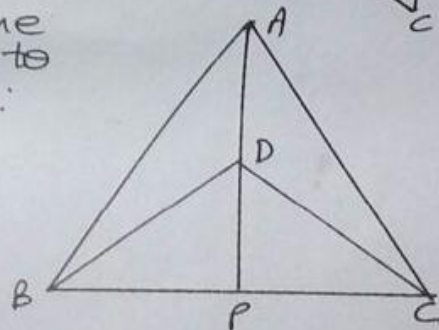


In the given figure, $\angle B < \angle A$ and $\angle C < \angle D$. Show that $AD < BC$. (3)



$\triangle ABC$ and $\triangle DBC$ are two isosceles triangles on the same base BC. If AD is extended to intersect BC at P, show that:

- $\triangle ABD \cong \triangle ACD$
- $\triangle ABP \cong \triangle ACP$
- AP is the perpendicular bisector of BC. (4)



7. Find the cost of levelling a ground in the form of a triangle with sides 16m, 12m and 20m at ₹ 4 per sq. meter. (3)
8. Two sides of a parallelogram are 10 cm and 7cm. One of its diagonals is 13 cm. Find the area. (3)
9. The perimeter of a triangular ground is 420m and its sides are in the ratio 6:7:8. Find the area of the triangular ground. (3)
10. If $AB \parallel DE$, $\angle BAC = 35^\circ$ and $\angle CDE = 53^\circ$, find $\angle DCE$. (2)

