INDIAN LEARNERS OWN ACADEMY, KUWAIT

Class	: IX	Subject	: Mathematics
Assignment by	: Mrs. Nusrat Unnisa	Topic / Lesson	: Lines and Angles

4th Assignment Questions:-

1) In Fig. (a) OP, OQ, OR and OS are four rays. Prove that
$\angle POQ + \angle QOR + \angle SOR + \angle POS = 360°$

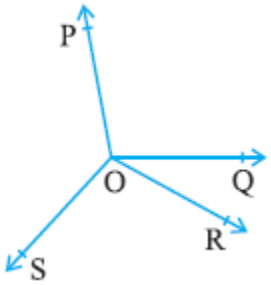

Fig (a)

2) In Fig. (b) $\angle PQR = \angle PRQ$, then prove that $\angle PQS = \angle PRT$.

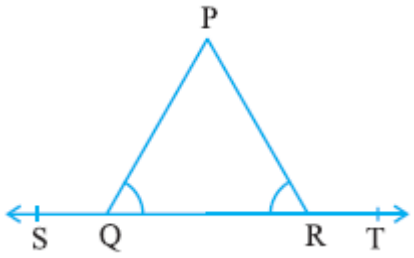

Fig. (b)

3) If a transversal intersects two lines such that the bisectors of a pair of corresponding angles are parallel, then prove that the two lines are parallel.

4) Prove that the sum of angles of a triangle is 180^0.

5) In Fig. (c) the sides AB and AC of ΔABC are produced to points E and D respectively. If bisectors BO and CO of $\angle CBE$ and $\angle BCD$ respectively meet at point O, then prove that $\angle BOC = 90° - \frac{1}{2} \angle BAC$.

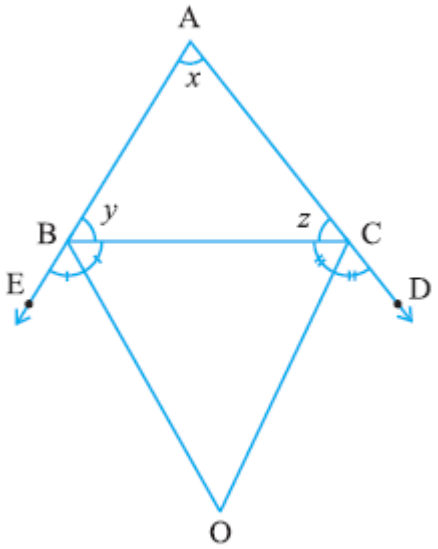

Fig. (c)

6) In fig. (d), if $AB \parallel DE$, $\angle BAC = 35°$ and $\angle CDE = 53°$, find $\angle DCE$.

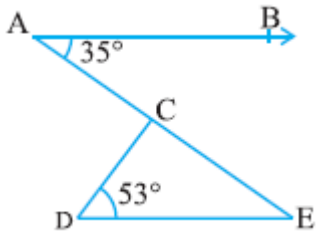

Fig. (d)

7) In Fig. 6.32, if AB || CD, $\angle APQ = 50°$ and $\angle PRD = 127°$, find x and y.

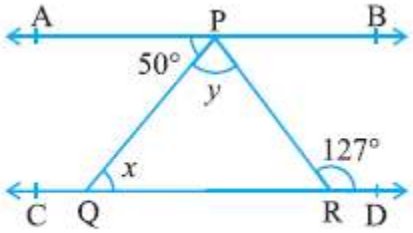

Fig. 6.32