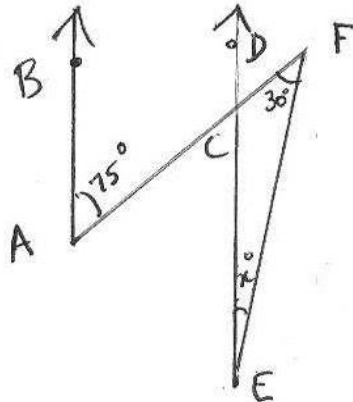
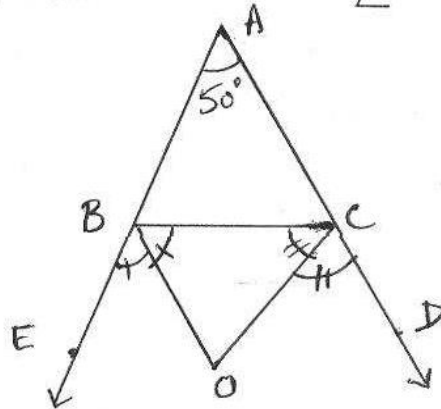


## LINES AND ANGLES

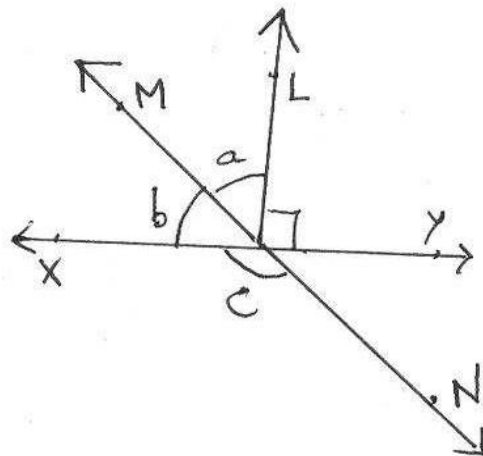
1. If two lines intersect each other prove that the vertically opposite angles are equal.
2. If a transversal intersects two lines such that the bisectors of a pair of alternate angles are parallel, then prove that the lines are parallel.
3. Prove that the sum of the angles of a triangle is  $180^\circ$ .
4. In the given figure  $AB \parallel CD$ , then find the value of  $x$ .



5. In the figure, BO and CO are bisectors of  $\angle B$  and  $\angle C$  respectively, find the value of  $\angle BOC$ .

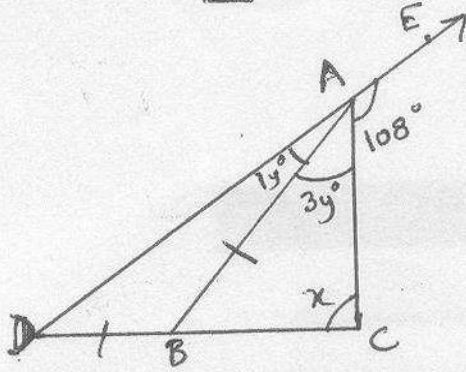


6. In the figure,  $a : b = 3 : 4$ , find  $c$ .

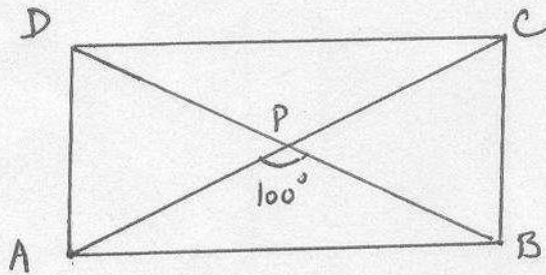


# ATOMIC ENERGY EDUCATION SOCIETY

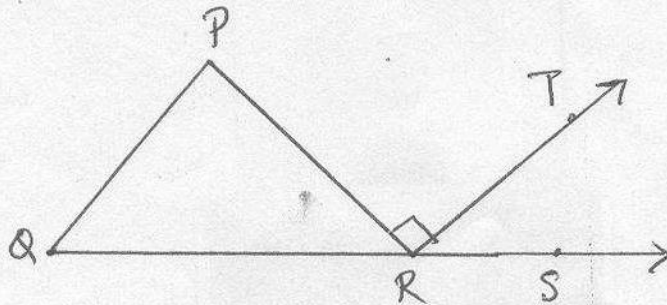
7. In the figure, AB divides  $\angle DAC$  in the ratio of 1 : 3 and  $AB = DB$ . Determine the value of  $x$ .



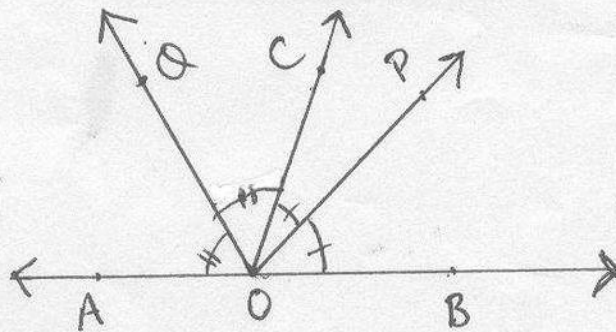
8. In the figure, ABCD is a rectangle, find the value of  $x$ .



9. In the figure  $\angle P : \angle Q : \angle PRQ = 3 : 2 : 1$  and RT is perpendicular to PR, find  $\angle TRS$ .



10. In the figure ray OC stands on line AOB. OP and OQ are bisectors of  $\angle BOC$  and  $\angle AOC$  respectively. Then find the value of  $\angle POQ$ .



(2)

