9th Comprehensive test paper Chapter Lines and Angles

Time: 40 Mins   M.M. 20

1. If the difference between two complementary angles is $20°$ then the angles are
   (a) $40, 50°$ (b) $70°, 50°$ (c) $35°, 55°$ (d) $45, 25$

2. AD is a straight line, OB bisects $\angle AOC$, if $\angle DOC = 40°$ then $\angle AOB =$
   (a) $60°$ (b) $70°$ (c) $140°$ (d) $80°$

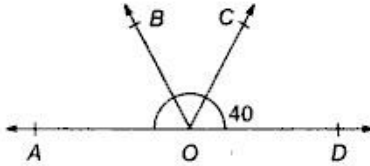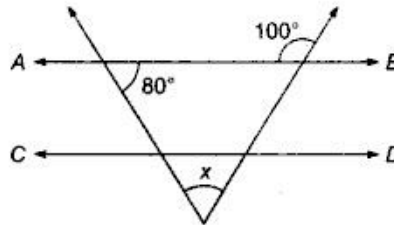**Fig. 2**

3. $AB \parallel CD$, then value of $x =$
   (a) $80°$ (b) $40°$ (c) $60°$ (d) $20°$

4. CP is bisector of exterior angle ACD of $\triangle ABC$, $AB \parallel CP$. If $\triangle ACD = 120°$ $ABC =$
   (a) $60°$ (b) $70°$ (c) $50°$ (d) $40°$
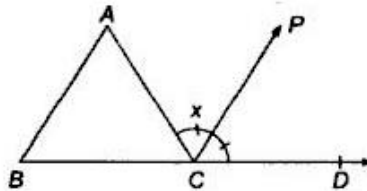

Fig. 4

5. If sum of two angles of a triangle is equal to the third angle then it is a
   (a) equilateral triangle   (b) Isosceles triangle
   (c) right angled triangle   (c) obtuse angled triangle.

6. In $\triangle PQR$, $\angle P = 90°$, $PS \perp QR$. Prove $\angle QPS = \angle PRQ$.
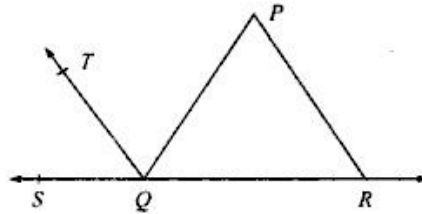7. In figure Q7, prove $QT \parallel RP$, if QT bisects $\angle PQS$ and $PQ = PR$.

Fig. Q7

8. Side BC of $\triangle ABC$ is produced to a point D, bisector of $\angle A$ meets BC at L. Prove $\angle ABC + \angle ACD = 2\angle ALC$.
9. In figure Q9, sides AB and AC are produced to points E and F. BO and CO are bisectors of $\angle CBE$ and $\angle BCF$ respectively. Prove that $\angle BOC = 90 - \dfrac{1}{2} \angle BAC$.
10. In the given figure Q10, the side QR is produced to a point S. If the bisectors of $\angle PQR$ and $\angle PRS$ meet at point T, prove $\angle QTR = \dfrac{1}{2} \angle QPR$.
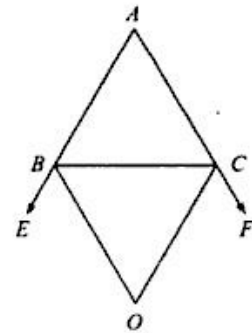

Fig. Q9

In the given figure, $l \parallel m$, AO and BO are bisector of $\angle PAB$ and $\angle QBA$ respectively. Prove that $\angle AOB$ is a right angle.

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