1. If the measures of angles of a triangle are in the ratio of 3: 4: 5, what is the measure of the smallest angle of the triangle?

    (a) 25° (b) 30° (c) 45° (d) 60°

2. Which of the following is not a criterion for congruence of triangles?

    (a) SAS   (b) SSA   (c) ASA   (d) SSS

3. If ABC and DEF are two triangles such that $\triangle ABC \cong \triangle FDE$ and $AB = 5cm, \angle B = 40^\circ$ and $\angle A = 80^\circ$. Then, which of the following is true?

    (a) $DF = 5cm, \angle F = 60^\circ$ (b) $DE = 5cm, \angle E = 60^\circ$

    (c) $DF = 5cm, \angle E = 60^\circ$ (d) $DE = 5cm, \angle D = 40^\circ$

4. In a $\triangle ABC$, if $\angle A = \angle B + \angle C$, then $\triangle ABC$ is

    (a) isosceles triangle   (b) equilateral triangle   (c) right triangle   (d) none of these

5. In Fig., $BC \parallel PQ, BP$ and CQ intersect at O. If $x + y = 80^\circ$ and $x - y = 55^\circ$, then $z =$
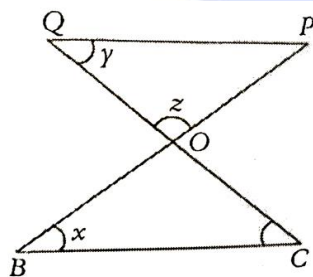
    (a) 80° (b) 55° (c) 90° (d) 100°

6. In Fig., $\angle A + \angle B + \angle C + \angle D + \angle E + \angle F =$
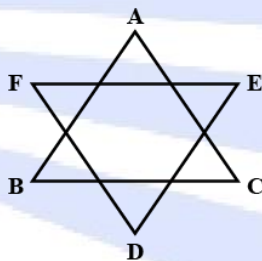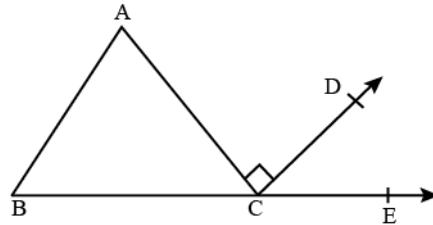

    (a) 180° (b) 360° (c) 540° (d) 90°

7. In Fig., if PT is the bisector of $\angle QPR$ in $\triangle PQR, \angle PQR = 50^\circ, \angle PRQ = 30^\circ$ and $PS \perp QR$, then $x =$
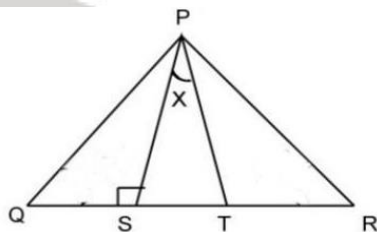
    (a) 40° (b) 20° (c) 30° (d) 10°

8. Which of the following is not a criterion for congruence of triangles?

    (a) SAS   (b) ASA   (c) SSA   (d) SSS

9. In two triangles ABC and PQR, if $AB = QR, BC = RP$ and $CA = PQ$, then

   (a) $\triangle ABC \cong \triangle PQR$ (b) $\triangle CBA \cong \triangle PRQ$ (c) $\triangle BAC \cong \triangle RPQ$ (d) $\triangle PQR \cong \triangle BCA$

10. In a $\triangle ABC$, it is given that $\angle A : \angle B : C = 3 : 2 : 1$ and $\angle ACD = 90°$. If B C is produced to E, then $\angle ECD =$

   (a) $60°$ (b) $30°$ (c) $50°$ (d) $40°$

11. An exterior angle of a triangle is equal to $100°$ and two interior opposite angles are equal. Each of these angles is equal to

   (a) $75°$ (b) $80°$ (c) $40°$ (d) $50°$

12. In $\triangle ABC$, if $\angle A = 100°, AD$ bisects $\angle A$ and $AD \perp BC$. Then, $\angle B =$

   (a) $50°$ (b) $90°$ (c) $40°$ (d) $100°$

13. An exterior angle of a triangle is $108°$ and its interior opposite angles are in the ratio 4: 5. The angles of the triangle are

   (a) $48°, 60°, 72°$ (b) $50°, 60°, 70°$ (c) $52°, 56°, 72°$ (d) $42°, 60°, 76°$

14. In a $\triangle ABC$, if $\angle A = 60°, \angle B = 80°$ and the bisectors of $\angle B$ and $\angle C$ meet at O, then $\angle BOC =$

   (a) $60°$ (b) $120°$ (c) $150°$ (d) $30°$