CLASS 8

SUBJECT :Algebra andGeometry**Work sheet 13**

Marks:15CONGRUENCY AND INEQUALITIES IN TRIANGLES

Date:27.2.21

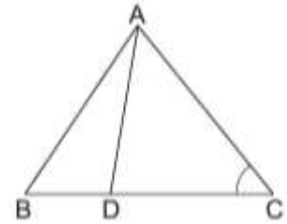## Answer all thefollowing questions(1×15=15)

MULTIPLE-CHOICE QUESTIONS (MCQ)

Choose the correct answer in each of the following:

1. Which of the following is not a criterion for congruence of triangles?
   (a) SSA   (b) SAS   (c) ASA   (d) SSS

2. If $AB = QR$, $BC = RP$ and $CA = PQ$ then which of the following holds?
   (a) $\triangle ABC \cong \triangle PQR$ (b) $\triangle CBA \cong \triangle PQR$
   (c) $\triangle CAB \cong \triangle PQR$ (d) $\triangle BCA \cong \triangle PQR$

3. If $\triangle ABC \cong \triangle PQR$ then which of the following is not true?
   (a) $BC = PQ$ (b) $AC = PR$ (c) $BC = QR$ (d) $AB = PQ$

4. In $\triangle ABC$, $AB = AC$ and $\angle B = 50°$. Then, $\angle A = ?$
   (a) 40°   (b) 50°   (c) 80°   (d) 130°

5. In $\triangle ABC$, $BC = AB$ and $\angle B = 80°$. Then, $\angle A = ?$
   (a) 50°   (b) 40°   (c) 100°   (d) 80°

6. In $\triangle ABC$, $\angle C = \angle A$, $BC = 4$ cm and $AC = 5$ cm. Then, $AB = ?$
   (a) 4 cm   (b) 5 cm   (c) 8 cm   (d) 2.5 cm

7. Two sides of a triangle are of length 4 cm and 2.5 cm. The length of the third side of the triangle cannot be
   (a) 6 cm   (b) 6.5 cm   (c) 5.5 cm   (d) 6.3 cm

8. In $\triangle ABC$, if $\angle C > \angle B$, then
(a) $BC > AC$ (b) $AB > AC$ (c) $AB < AC$ (d) $BC < AC$

9. It is given that $\triangle ABC \cong \triangle FDE$ in which $AB = 5$ cm, $\angle B = 40°$, $\angle A = 80°$ and $FD = 5$ cm. Then, which of the following is true?
(a) $\angle D = 60°$ (b) $\angle E = 60°$ (c) $\angle F = 60°$ (d) $\angle D = 80°$

10. In $\triangle ABC$, $\angle A = 40°$ and $\angle B = 60°$. Then, the longest side of $\triangle ABC$ is
(a) BC (b) AC
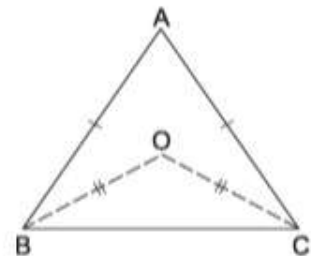(c) AB (d) cannot be determined

11. In the given figure, $AB > AC$. Then, which of the following is true?
(a) $AB < AD$
(b) $AB = AD$
(c) $AB > AD$
(d) Cannot be determined

12. In the given figure, $AB > AC$. If BO and CO are the bisectors of $\angle B$ and $\angle C$ respectively then
(a) $OB = OC$
(b) $OB > OC$
(c) $OB < OC$
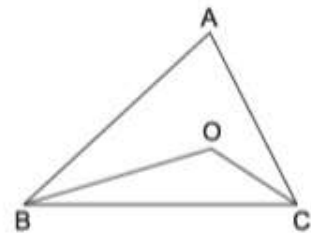
13. In the given figure, $AB = AC$ and $OB = OC$. Then, $\angle ABO : \angle ACO = ?$
(a) $1 : 1$
(b) $2 : 1$
(c) $1 : 2$
(d) none of these

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14. If the altitudes from two vertices of a triangle to the opposite sides are equal then the triangle is
(a) equilateral (b) isosceles
(c) scalene (d) right angled

15. In $\triangle ABC$ and $\triangle DEF$, it is given that $AB = DE$ and $BC = EF$. In order that $\triangle ABC \cong \triangle DEF$, we must have
(a) $\angle A = \angle D$ (b) $\angle B = \angle E$ (c) $\angle C = \angle F$ (d) none of these