



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



CLASS 8

SUBJECT :Algebra and Geometry

Work sheet 10

Marks:15

CONGRUENCY AND INEQUALITIES IN TRIANGLES

Date:17.4.2020

Answer all the following questions(1×15=15)

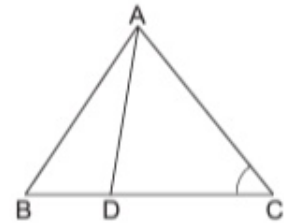
MULTIPLE-CHOICE QUESTIONS (MCQ)

Choose the correct answer in each of the following:

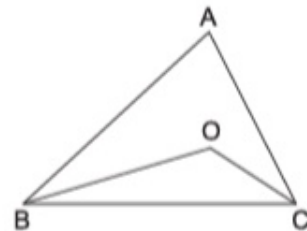
- Which of the following is not a criterion for congruence of triangles?
(a) SSA (b) SAS (c) ASA (d) SSS
- If $AB = QR$, $BC = RP$ and $CA = PQ$ then which of the following holds?
(a) $\triangle ABC \cong \triangle PQR$ (b) $\triangle CBA \cong \triangle PQR$
(c) $\triangle CAB \cong \triangle PQR$ (d) $\triangle BCA \cong \triangle PQR$
- If $\triangle ABC \cong \triangle PQR$ then which of the following is not true?
(a) $BC = PQ$ (b) $AC = PR$ (c) $BC = QR$ (d) $AB = PQ$
- In $\triangle ABC$, $AB = AC$ and $\angle B = 50^\circ$. Then, $\angle A = ?$
(a) 40° (b) 50° (c) 80° (d) 130°
- In $\triangle ABC$, $BC = AB$ and $\angle B = 80^\circ$. Then, $\angle A = ?$
(a) 50° (b) 40° (c) 100° (d) 80°
- 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
- 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, $\angle B = 40^\circ$, $\angle A = 80^\circ$ and $FD = 5$ cm. Then, which of the following is true?
 (a) $\angle D = 60^\circ$ (b) $\angle E = 60^\circ$ (c) $\angle F = 60^\circ$ (d) $\angle D = 80^\circ$
10. In $\triangle ABC$, $\angle A = 40^\circ$ and $\angle B = 60^\circ$. Then, the longest side of $\triangle ABC$ is
 (a) BC (b) AC
 (c) AB (d) cannot be determined

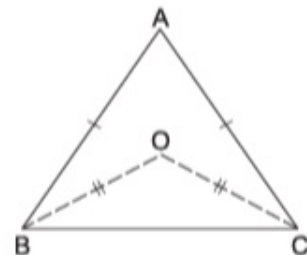
11. In the given figure, $AB > AC$. Then, which of the following is true?



- (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
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

