

Class: 7

Subject: Mathematics

Topic: Congruency of Triangles

No. of Questions: 20

Duration: 60 Min

Maximum Marks: 60

1. Two angles are congruent if they have

- A. same name
- B. None of these
- C. unequal measures
- D. equal measures

D (Congruency means equality in all respect)

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

- A. None of these
- B. SSS
- C. SAS
- D. ASA

A (all the given are conditions of congruency)

3. If a $\triangle ABC \cong \triangle PQR$, then AB is equal to

- A. QR
- B. None of these
- C. PR
- D. PQ

D (PQ is corresponding side to AB. AS PER THE STATEMENT WRITTEN)

4. In $\triangle ABC$ and $\triangle PQR$, $AB = 4$ cm, $BC = 5$ cm, $AC = 6$ cm and $PQ = 4$ cm, $QR = 5$ cm, $PR = 6$ cm, then which of the following is true?

- A. $\triangle ABC \cong \triangle PQR$
- B. $\triangle ABC \cong \triangle QRP$
- C. $\triangle ABC \cong \triangle RQP$
- D. None of these

A ($AB=PQ$ & $BC=QR$ So ABC & PQR)

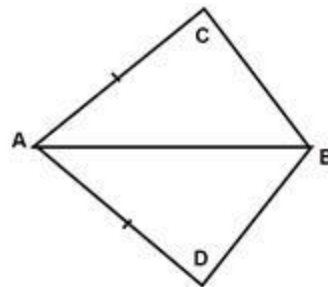
5. If $\triangle DEF \cong \triangle ACB$, then the part of $\triangle ACB$ that correspond to $\angle F$ is

- A. $\angle B$
- B. $\angle C$
- C. $\angle A$
- D. None of these

A (Angle B is corresponding angle to angle F)

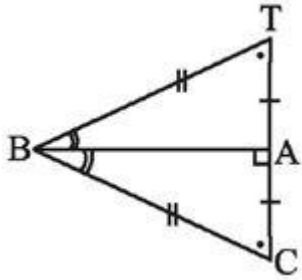
6. In the quadrilateral $ABCD$, $AC = AD$ and AB bisect $\angle A$ and $\triangle ABC \cong \triangle ABD$. The relation between BC and BD is

- A. None of these
- B. $BC < BD$
- C. $BC = BD$
- D. $BC > BD$



C (Both the triangles are congruent so BC & BD are corresponding sides and they will be equal)

7. In the below figure, complete the congruence statement: $\triangle BCA \cong ?$



- A. $\triangle BAT$
- B. $\triangle BTA$
- C. $\triangle TAB$
- D. $\triangle ATB$

B. Corresponding sides and angle.

8. What is the side included between the angles M and N of $\triangle MNP$?

- A. MP
- B. NP
- C. MN
- D. None of these

C (Draw the figure)

9. In triangles DEF and PQR, $\angle D = 60^\circ$, $\angle F = 80^\circ$, $DF = 5$ cm, $\angle Q = 60^\circ$, $\angle R = 80^\circ$, $QR = 5$ cm. By which congruence rule the triangles are congruent?

- A. SAS
- B. ASA
- C. SSS
- D. RHS

B (As two angles and one side are equal)

10. Two line segments are congruent if they have

- A. equal measures
- B. same name
- C. None of these
- D. unequal measures

A (Congruency means equality in all respect)

11. Which angle is included between the sides DE and EF of $\triangle DEF$?

- A. $\angle D$
 - B. $\angle F$
 - C. $\angle E$
 - D. None of these
- C. Common Points

12. By applying SAS congruence rule, you want to establish that $\triangle PQR \cong \triangle FED$. It is given that $PQ = FE$ and $RP = DF$. What additional information is needed to establish the congruence?

- A. $\angle P = \angle F$
- B. $\angle Q = \angle D$
- C. $\angle P = \angle D$
- D. None of these

A (The equal sides must contain the angle; this is the condition for SAS)

13. Which congruence criterion do you use in the following?

Given: $AC = DF$, $AB = DE$, $BC = EF$. So, $\triangle ABC \cong \triangle DEF$

- A. SSS
- B. RHS
- C. SAS
- D. ASA

A (As three sides are equal)

14. You want to establish $\triangle DEF \cong \triangle MNP$, using the ASA congruence rule. You are given that $\angle D = \angle M$ and $\angle F = \angle P$. What information is needed to establish the congruence?

- A. $DF = MN$
- B. $DF = NP$
- C. $DF = MP$
- D. None of these

C (The equal side must be between equal angles)

15. You want to establish $\triangle DEF \cong \triangle MNP$, using the ASA congruence rule. You are given that $\angle D = \angle M$ and $\angle F = \angle P$. What information is needed to establish the congruence?

- A. None of these
- B. $\angle DE = \angle N$
- C. $DE = MN$
- D. $DF = MP$

D (The equal side must be between equal angles)

16. Among two congruent angles, one has a measure of 70° ; the measure of the other angle is _____.

- A. 80°
- B. 70°
- C. 50°
- D. 60°

B (As congruency means equality in all respect)

17. If $\triangle DEF \cong \triangle BCA$, write the part(s) of BCA that correspond to $\angle E$

- A. $\angle A$
- B. $\angle C$
- C. None of these
- D. $\angle D$

B (As per the condition written, C is corresponding to E)

18. If $\triangle DEF \cong \triangle BCA$, write the part(s) of BCA that correspond to $\angle F$

- A. $\angle D$
- B. $\angle C$
- C. $\angle A$
- D. None of these

C (A is corresponding to F)

19. In triangles ABC and PQR, AB = 3.5 cm, BC = 7.1 cm, AC = 5 cm, PQ = 7.1 cm, QR = 5 cm and PR = 3.5 cm. By which congruence rule the triangles are congruent?

- A. SSS
- B. ASA
- C. RHS
- D. SAS

A (As three sides are equal)

20. Among two congruent angles, one has a measure of 100° ; the measure of the other angle is _____.

- A. 120°
- B. 130°
- C. 110°
- D. 100°

D (As congruency means equality)