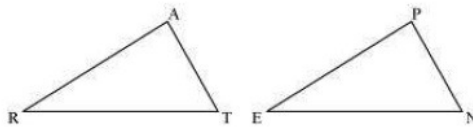


Class: VII  
Subject: Math's  
Topic: Congru of triangle  
No. of Questions: 20

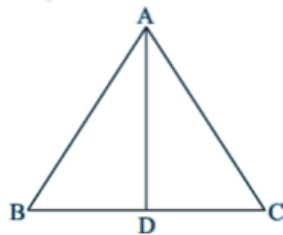
- Q1. If two angle are \_\_\_\_\_, their measure are same.
- Q2. The sum of an exterior angle of a triangle and its adjacent interior angle is \_\_\_\_\_
- Q3. In an Isosceles triangle base angle opposite to the equal sides are \_\_\_\_\_.
- Q4. The side opposite to the right angle is called the \_\_\_\_\_ of the right-angles triangle.
- Q5. Given below are measurements of some parts of two triangles. Examine whether the two triangles are congruent or not, by using SAS congruence rule. If the triangles are congruent, write them in symbolic form.  
In  $\triangle ABC$ ,  $BC = 6$  cm,  $AC = 4$  cm,  $\angle B = 35^\circ$  and in  $\triangle DEF$ ,  $DF = 4$  cm,  $EF = 6$  cm,  $\angle E = 35^\circ$ .
- Q6. According to Pythagoras property, in a right-angled triangle, the square on the \_\_\_\_\_ = sum of the squares on the legs.  
a. Right angle  
b. Altitude  
c. Hypotenuse  
d. None of these
- Q7. You want to show that  $\triangle ART \cong \triangle PEN$ , if you have to use SSS criterion, then you need to show  $AR =$   
a. PN  
b. EN  
c.  $\angle P$   
d. PE
- Q8. Complete the following statements:  
a. Tow line segments are congruent if \_\_\_\_\_.  
b. Among two congruent angles, one has a measure of  $70^\circ$ ; the measure of the other angle is \_\_\_\_\_.  
c. When we write  $\angle A = \angle B$ , we actually mean \_\_\_\_\_.

- Q9. Give any two real-life example for congruent shapes.
- Q10. If triangle  $DEF \cong$  triangle  $BCA$ , write the part (s) of triangle  $BCA$  that correspond to
- $\angle E$
  - $\overline{EF}$
  - $\angle F$
  - $\overline{DF}$

- Q11. You want to show that  $\triangle ART \cong \triangle PEN$ ,
- (a) If you have to use SSS criterion, then you need to show
- $AR =$
  - $RT =$
  - $AT =$
- (b) If it is given that  $\angle T = \angle N$  and you are to use SAS criterion, you need to have
- $RT =$  and (ii)  $PN =$
- (c) If it is given that  $AT = PN$  and you are to use ASA criterion, you need to have
- ? (ii) ?



- Q12. In the following figure,  $AB = AC$  and  $D$  is the mid-point of  $BC$ , Is  $\triangle ADB \cong \triangle ADC$ ? Give reasons.



- Q13. Which congruence criterion do you use in the following?
- Given:**  $EB = DB$ ,  $AE = BC$ ,  $\angle A = \angle C = 90^\circ$ . So,  $\triangle ABE \cong \triangle CDB$
- SAS rule
  - SSS rule
  - ASA rule
  - RHS rule

Q14.  $\triangle ABC$  and  $\triangle PQR$  are congruent under the correspondence:

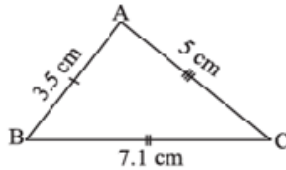
$$ABC \leftrightarrow RQP$$

Write the parts of  $\triangle ABC$  that correspond to

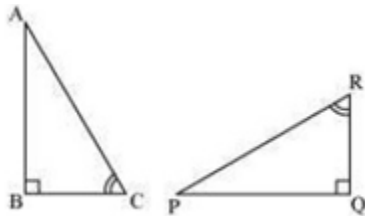
- (i)  $\overline{PQ}$
- (ii)  $\angle Q$
- (iii)  $\overline{RP}$

Q15. 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. Examine whether the two triangles are congruent or not.

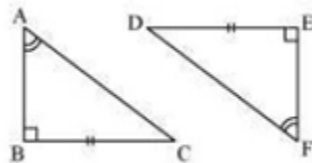
If yes, write the congruence relation in symbolic form.



Q16. If  $\triangle ABC$  and  $\triangle PQR$  are to be congruent, name one additional pair of corresponding parts. What criterion did you use?



Q17. Explain, why  
 $\triangle ABC \cong \triangle FED$



- Q18. In Fig 7.23,  $AB = AC$  and  $AD$  is the bisector of  $\angle BAC$ .
- State three pairs of equal parts in triangle  $ADB$  and  $ADC$ .
  - Is  $\triangle ADB \cong \triangle ADC$ ? Give reasons.
  - Is  $\angle B = \angle C$ ? Give reasons.

Fig 7.22

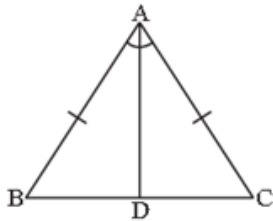


Fig 7.23

- Q19. In Fig. 7.26, can you use ASA congruence rule and conclude that  $\triangle AOC \cong \triangle BOD$ ?

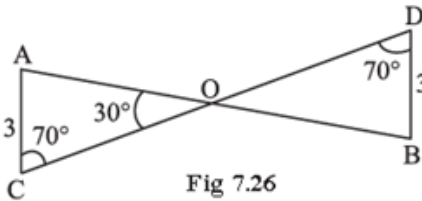


Fig 7.26

- Q20. Complete the congruence statement:

$\triangle BCA \cong ?$

$\triangle QRS \cong ?$

