Q) What are similar triangles?

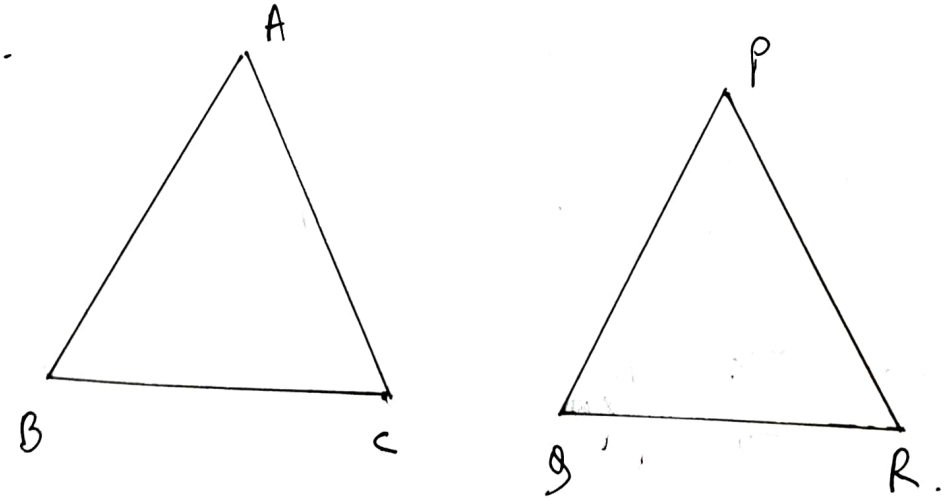
Ans:- If two pair of corresponding angles in a pair of triangles are congruent, then the triangles are similar.

Q) What are congruent triangles?

Ans:- Congruent triangles are triangles that have the same size and shape. This means that the corresponding sides are equal and the corresponding angles are equal.

Q) For two given triangles ABC and PQR, how many matchings are possible.

Ans:-



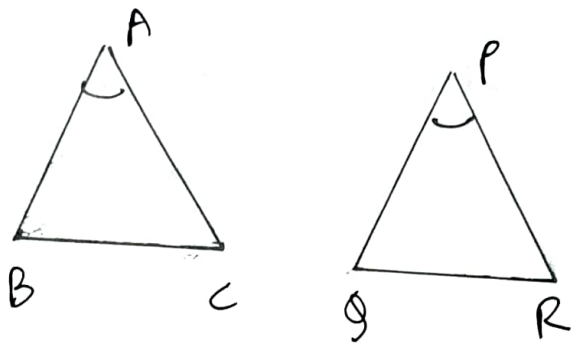
Ans:- In the above diagrams total 6 matchings are possible.

i.e. $ABC \leftrightarrow PQR$, $ABC \leftrightarrow PRQ$, $ABC \leftrightarrow QRP$.

$ABC \leftrightarrow QPR$, $ABC \leftrightarrow RPQ$, $ABC \leftrightarrow RQP$.

(8) If $\Delta ABC \cong \Delta PQR$. Then $\angle A$ is corresponding to which angle.

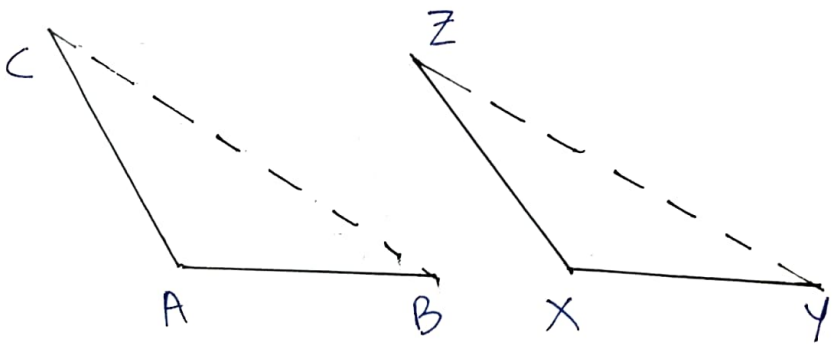
Ans:-



$\angle A$ is corresponding to $\angle P$.

9) Which congruency criterion do you use in the following?

Ans:-



Ans:- Given that $ZX = AC$,

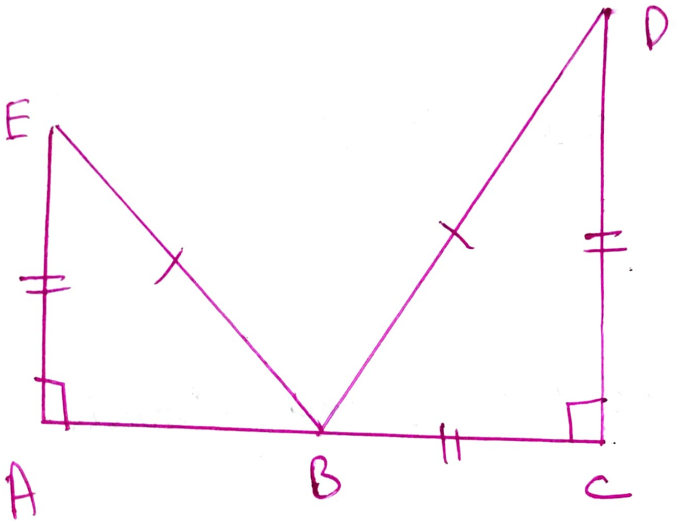
$ZY = BC$,

& $\angle ACB = \angle XZY$.

So, $\Delta ACB \cong \Delta XZY$

So it is, SAS congruency criterion.

(9) Which congruency criterion do you use for the following?



Given that :- EB is the hypotenuse of $\triangle ABE$.

and $AB = BC$

& $AE = BC$.

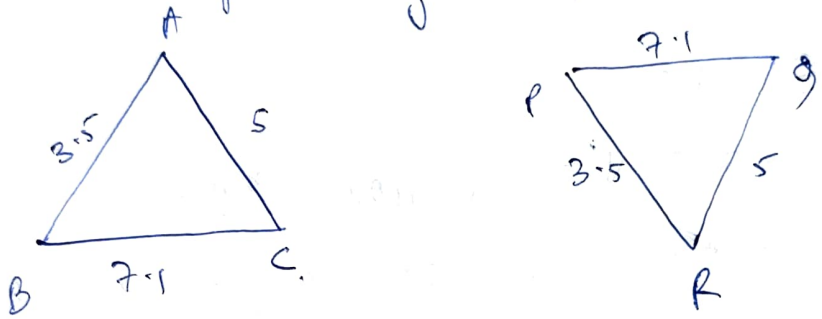
& $\angle A = \angle C = 90^\circ$. $\therefore \triangle ABE \cong \triangle BCD$.

Ans:- It follows the RHS congruency of criterion.

9) An angle is of 50° then its congruent angle is :-

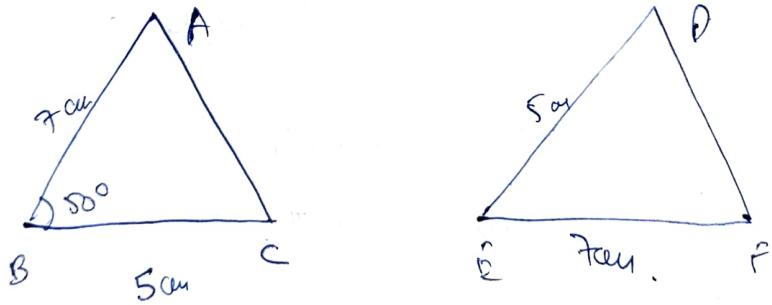
Ans:- Its congruent angle is also of 50°. Since two congruent angles are same in measurement.

9) Given two triangles are congruent then we can write



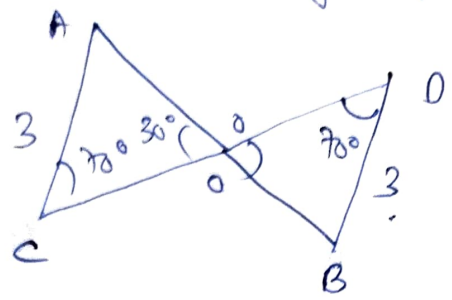
Ans:- These figures shows that the three sides of one triangle are equal to the three sides of the other triangle. So by SSS congruency Rule the two triangles are congruent. It can be easily seen that $A \leftrightarrow R$, $B \leftrightarrow P$, and $C \leftrightarrow Q$.

9) Are the following triangles congruent?



Ans:- No they are not congruent.

8). In the given figure, say congruency of two triangles:

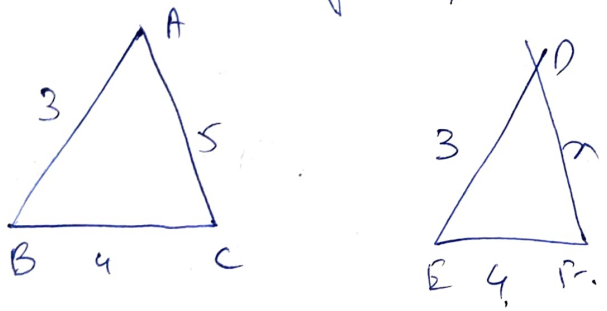


Ans:- $\Delta AOC \cong \Delta BOD$.

$\angle AOC = \angle BOD = 30°$ Vertically opposite angles.

According to ASA congruency of two triangles are congruent.

9) Given triangles are congruent, Give the measurement of x.?



Ans:- The value of x is -5.

By SSS congruency all the three sides of a triangle are equal.

8) Given below are measurements of some parts of two triangles. Say whether they are congruent or not.

A $\angle A = 90°$, $AC = 5cm$, $BC = 9cm$ — In ΔABC.

$\angle B = 90°$, $PR = 3cm$, $QR = 8cm$ — In ΔPQR.

Ans:- No, they are not congruent.