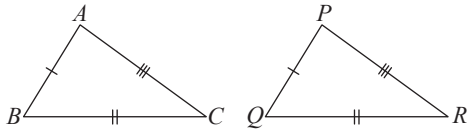


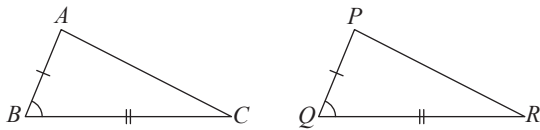
Congruent Triangles

(a) The 3 corresponding sides of both triangles are equal. (SSS Property)



$$\begin{aligned} AB &= PQ \\ BC &= QR \\ AC &= PR \\ \therefore \triangle ABC &\equiv \triangle PQR \text{ (SSS)} \end{aligned}$$

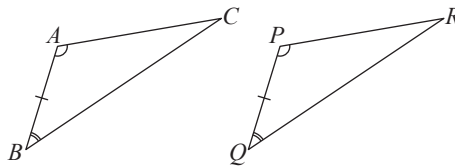
(b) The 2 corresponding sides and the included angle of both triangles are equal. (SAS Property)



$$\begin{aligned} AB &= PQ \\ \angle ABC &= \angle PQR \\ BC &= QR \\ \therefore \triangle ABC &\equiv \triangle PQR \text{ (SAS)} \end{aligned}$$

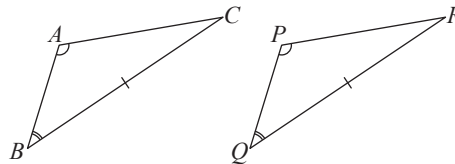
(c) The 2 corresponding angles and a corresponding side of both triangles are equal.

(i) (ASA Property)



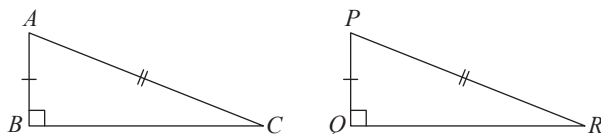
$$\begin{aligned} \angle BAC &= \angle QPR \\ AB &= PQ \\ \angle ABC &= \angle PQR \\ \therefore \triangle ABC &\equiv \triangle PQR \text{ (ASA)} \end{aligned}$$

(ii) (AAS Property)



$$\begin{aligned} \angle BAC &= \angle QPR \\ \angle ABC &= \angle PQR \\ BC &= QR \\ \therefore \triangle ABC &\equiv \triangle PQR \text{ (AAS)} \end{aligned}$$

(d) The corresponding hypotenuse and a corresponding side of both right-angled triangles are equal. (RHS Property)



$$\begin{aligned} \angle ABC &= \angle PQR = 90^\circ \\ AC &= PR \\ AB &= PQ \\ \therefore \triangle ABC &\equiv \triangle PQR \text{ (RHS)} \end{aligned}$$