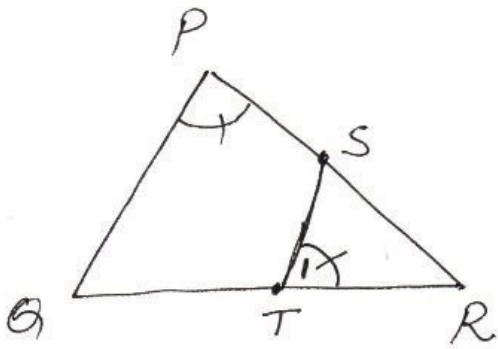


⑤

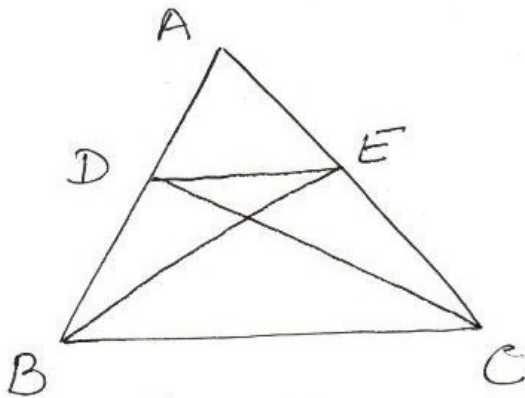


To show $\Delta RPQ \sim \Delta RTS$

proof $\angle R = \angle R$ (common)
 $\angle P = \angle T$ (given)

$\therefore \Delta RPQ \sim \Delta RTS$ by
 AA Sim.

⑥



given - In figure

$$\Delta ABE \cong \Delta ACD$$

to prove $\Delta ADE \sim \Delta ABC$

proof $\Delta ABE \cong \Delta ACD$

$$AB = AC \dots \textcircled{1} \text{ (cpct)}$$

$$AE = AD$$

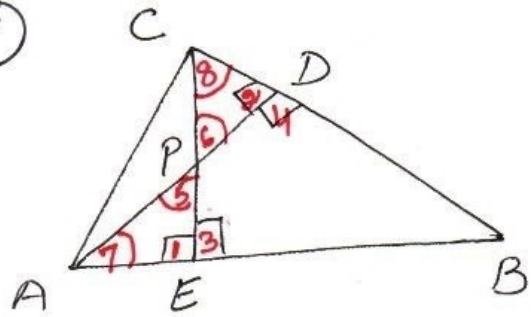
$$\Rightarrow AD = AE \dots \textcircled{11}$$

$$\textcircled{11} \div \textcircled{1}$$

$$\frac{AD}{AB} = \frac{AE}{AC} \text{ and } \angle A = \angle A$$

$\therefore \Delta ADE \sim \Delta ABC$ by SAS
 rule

⑦



to show $\Delta AEP \sim \Delta CDP$

$$\Delta ABD \sim \Delta CBE$$

$$\Delta AEP \sim \Delta ADB$$

$$\Delta PDC \sim \Delta BEC$$

proof $\angle 1 = \angle 2 = 90^\circ$
 $\angle 5 = \angle 6$ (vert. opp. \angle s)

$\therefore \Delta AEP \sim \Delta CDP$ by AA
 cor.

$$\angle 4 = \angle 3 = 90^\circ$$

$$\angle B = \angle B \text{ (common)}$$

$\therefore \Delta ABD \sim \Delta CBE$ by
 AA Sim.

$$\angle 7 = \angle 7$$

$$\angle 1 = \angle 4 = 90^\circ$$

$\therefore \Delta AEP \sim \Delta ADB$ by
 AA Sim.

$$\angle 8 = \angle 8$$

$$\angle 2 = \angle 3 = 90^\circ$$

$\therefore \Delta PDC \sim \Delta BEC$ by
 AA Sim.