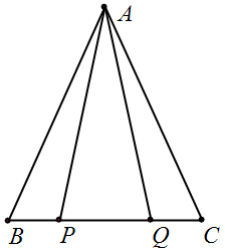

Example 25 : As shown *in* Figure 1, let P and Q *be* two fixed points on *line* segment BC , and BP = CQ , A is a moving point outside BC, when point A moves to make ∠ BAP = ∠CAQ , determine the shape of △ ABC, and justify your conclusions .

Proof: Suppose $A=0$, $P=tB+(1-t)C$, $Q=B+C-P$, $(1-t)t\dfrac{\dfrac{C-B}{C}}{\dfrac{B}{B-C}}+\dfrac{\dfrac{P}{B}}{\dfrac{C}{Q}}=1.$