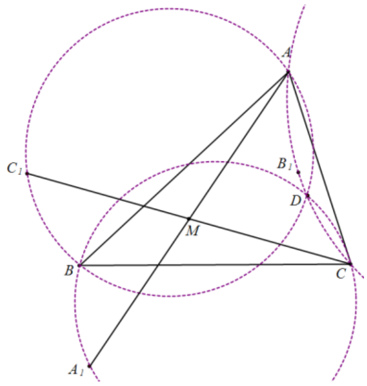

Example 1 93 : As shown in Figure 1 , ***point*** M in $\triangle ABC$, extend AM to AA_1, make $AM = A_1M$, extend BM to BB_1, make $BM = B_1M$, extend CM to CC_1, make $CM = C_1M$, to prove: the circumscribed circles of $\triangle ABC_1$, $\triangle A_1BC$, $\triangle AB_1C$ intersect at point D.

Proof: Assume that the circumscribed circles of $\triangle ABC_1$ and $\triangle A_1BC$ intersect at point D, and then prove that D *is* on the circumscribed circle of $\triangle AB_1C$.

Proof: $\dfrac{\frac{D-A}{D-C}}{\frac{B_1-A}{B_1-C}} = \dfrac{A_1-B}{B_1-A}\dfrac{C_1-A}{A_1-C}\dfrac{B_1-C}{C_1-B}\dfrac{\frac{B-D}{D-C}}{\frac{A_1-B}{A_1-C}}\dfrac{\frac{D-A}{B-D}}{\frac{C_1-A}{C_1-B}}$,