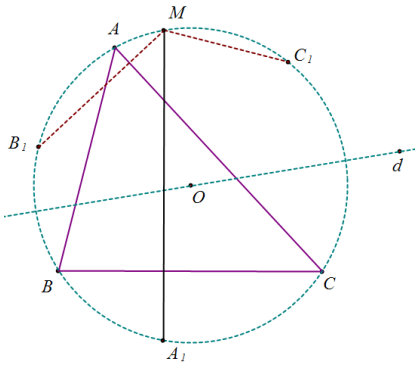

Example 187 : As shown in Figure 1 , *in* $\triangle ABC$, the straight line d *passes through* the circumcenter O *of* $\triangle ABC$, the symmetric points of A, B, and C with respect to d *are* A_1, B_1, C_1, and the straight line passing through A_1 is perpendicular to BC. The circle is in M, prove that $MB_1 \perp AC$, $MC_1 \perp AB$.

Proof: The following only proves $MB_1 \perp AC$.

Proof: $$\frac{B_1-M}{A-C}\frac{\dfrac{C_1-A_1}{C_1-B_1}}{\dfrac{C-B}{C-A}}\frac{\dfrac{M-A_1}{M-B_1}}{\dfrac{C_1-A_1}{C_1-B_1}}\frac{B-C}{M-A_1}=-1.$$