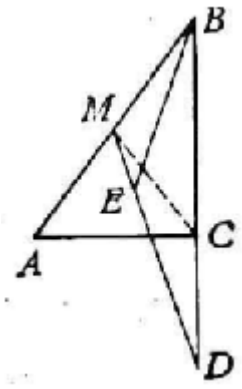

Example 35 : As shown in Figure 1 , the known point M is the midpoint of the hypotenuse AB of $Rt\ \triangle ABC$, extend BC to point D, make 2 $CD = AB$, connect MD, intersect the bisector of $\angle B$ at point E, and verify: $BE = ED$.

Proof: Suppose $C=0$, $\left(\dfrac{\dfrac{B-0}{B-E}}{\dfrac{D-\dfrac{A+B}{2}}{D-0}}\right)^2 = 2\dfrac{\dfrac{B-0}{B-E}}{\dfrac{B-E}{B-A}}\dfrac{\dfrac{\dfrac{A+B}{2}-0}{\dfrac{A+B}{2}-D}}{\dfrac{D-\dfrac{A+B}{2}}{D-0}}\dfrac{\dfrac{D}{A-B}}{\dfrac{A+B}{B}}$

[Certificate] Even MC, then $MC = MB$, so $\angle MCB = \angle MBC = 2\angle EBD$.
And $MC = CD$, so $\angle MCB = \angle CMD + \angle D = 2\angle D$;
So $\angle EBD = \angle D$, $BE = ED$. _