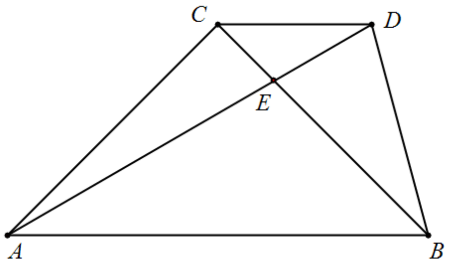

Pass through the right angle vertex C *of the isosceles right angle* $\triangle ABC$ to draw a parallel line to AB, *and take a point* D on it, make $AB = AD$, let AD and BC intersect at point E, *and* verify: $BD = BE$, $2CD = AE$, $2S_{\triangle ABC} = S_{\triangle ABE}$, $2\angle CAD = \angle DAB$.

Example 1 61 : As shown in Figure 1, there is a point **D** in $\triangle$ **ABC**, $\angle$ **CAB**, so that $AD = AB$, $2\angle CAD = \angle DAB$, AD and BC intersect at point E, to prove: The necessary and sufficient condition of **$CA \perp CB$ is** $BD = BE$.

$$\frac{\frac{D-B}{D-A}}{\frac{B-A}{B-D}}\left(\frac{C-B}{C-A}\right)^2\left(\frac{\frac{A-D}{C-B}}{\frac{D-B}{D-A}}\right)^2\frac{\left(\frac{A-C}{A-D}\right)^2}{\frac{A-D}{A-B}}=-1,$$