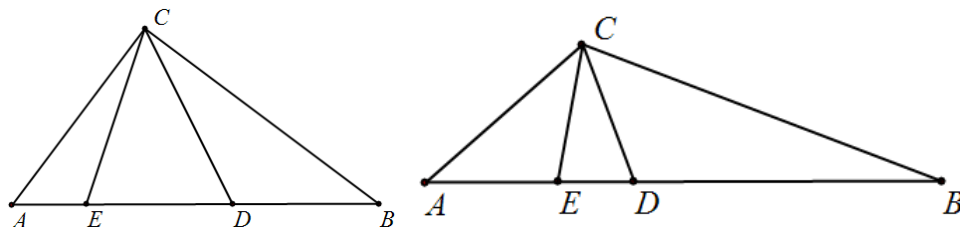Example 105 : As shown in Figure 1, it is known that D and E are two points on the hypotenuse *AB of the right angle* $\triangle ABC$ *, and A D = AC, BE = BC,* find the degree of $\angle ECD$.

$$\frac{\dfrac{C-B}{C-A}}{\left(\dfrac{C-D}{C-E}\right)^2} = -\frac{\dfrac{E-C}{A-B}\dfrac{B-A}{D-C}}{\dfrac{C-B}{C-E}\dfrac{C-B}{C-A}}\left(\frac{C-B}{C-A}\right)^2, \quad \text{so } \angle ECD = 45°.$$

Simplify the above identity $\dfrac{\dfrac{A-C}{C-B}}{\left(\dfrac{C-D}{C-E}\right)^2} = \dfrac{\dfrac{E-C}{A-B}\dfrac{B-A}{D-C}}{\dfrac{C-B}{C-E}\dfrac{C-D}{C-A}}$, and then get the extended proposition:

As shown in Figure 1, in $\triangle ABC$, it is known that D and E are two points on AB, *and A D = AC, BE = BC,* find the complementarity of $\angle ECD$ and $\angle ACB$.