Author solution:

**Step 1:** Connect E and C.  
**Step 2:** BE divides <ABC, so <CBE = <ABE. As, AE = BE so <ABE = <BAE, therefore we can find <AEB. As, BE = BC so <BEC = <BCE. Therefore we can also find <AEC.

**Step 3:** from triangle BEC, using Sine law find CE.  
**Step 4:** from triangle AEC, using Cosine law find AC.  
**Step 5:** from triangle AEC, using Sine law find <EAC.

Alternate Solution:

As given data, say <EAD = <EBA = <EBC = theta.

**Step 1:** Draw perpendicular from E to AB, say this is ED.

**Step 2:** Draw perpendicular from C to AB, say this is CF.

**Step 3:** from triangle BFC, using sin <CBF = CF / BC, find CF.

**Step 4:** from triangle BFC, using cos <CBF = BF / BC, find BF.

**Step 5:** from triangle AFD, using cos <EAD = AD / AE, find AD.

**Step 6:** from triangle CAF, tan < CAF = CF / AF. Find AF, Find <CAF.

**Step 7:** <EAC = <CAF - <EAD.