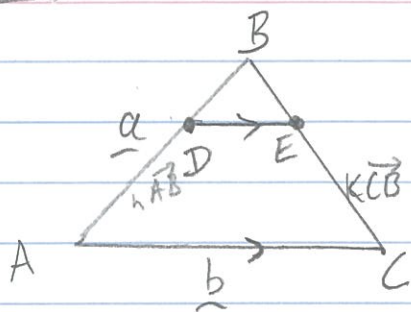


Ex 7A

Given $\vec{AD} = h\vec{AB}$

RTP: $\vec{CE} = h\vec{CB}$

7.



Let $\vec{CE} = k\vec{CB}$

$$\vec{CB} = \underline{a} - \underline{b}$$

$$\vec{CE} = k(\underline{a} - \underline{b})$$

$$\vec{AD} = h\underline{a}$$

$$\vec{DE} = -h\underline{a} + \underline{b} + k(\underline{a} - \underline{b})$$

$$= \underline{a}(k-h) + \underline{b}(1-k)$$

since $\vec{DE} \parallel \vec{AC}$

$$\vec{DE} = \lambda \vec{AC}$$

$$\underline{a}(k-h) + \underline{b}(1-k) = \lambda \underline{b}$$

$$\therefore k-h = 0 \quad (\text{and } 1-k = \lambda)$$

$$\therefore k = h$$

$$\therefore \vec{CE} = h\vec{CB}$$