$y = torch.dot(x_1, x_2)$

Require: x_1 vector, x_2 vector

$|x_1| = |x_2|$

Guarantee: $|y| = (n)$

$\vdash E_1 \Rightarrow e_1, c_1$

$\vdash E_2 \Rightarrow e_2, c_2$

$k_1 = rank(e_1)$

$k_2 = rank(e_2)$

$C = \{(k_1 == 1) \wedge (k_2 == 1) \wedge (e_1 == e_2) \wedge (n \in \mathbb{R})\}$

$\vdash dot(E_1, E_2) \Rightarrow n, (c_1 \cup c_2 \cup C)$

Description: Returns dot product of two vector inputs.