

torch.flatten

$$\sigma \vdash E \Rightarrow e, c$$

$$k = \text{rank}(e)$$

$$e' = (e[1] \times \dots \times e[k])$$

$$c' = \{(k \geq 0)\}$$

$$\sigma \vdash \text{flatten}(E) \Rightarrow e', c \vee c'$$

$$\sigma \vdash E \Rightarrow e, c$$

$$k = \text{rank}(e)$$

$$e' = e[1] @ e[2] @ \dots @ e[n-1] @ (e[n] \times \dots \times e[k])$$

$$c' = \{(k \geq 0) \wedge (n \geq 0)\}$$

$$\sigma \vdash \text{flatten}(E, n) \Rightarrow e', c \vee c'$$

torch.flatten(x)

Require $|x| = (d_1, d_2, \dots, d_k), k \geq 0$

Guarantees $(d_1 \cdot d_2 \cdot \dots \cdot d_k)$ tensor 변환

torch.flatten(x, n):

Require $|x| = (d_1, d_2, \dots, d_k),$
 $n \geq 0, k \geq 0$

Guarantees

$(d_1, d_2, \dots, d_{n-1}, (d_n \cdot d_{n+1} \cdot \dots \cdot d_k))$
tensor 변환