

12-V 1 / 0 — because δ is partial

(5 1) — fun app need λ on P

set-box: 7 2 — set-box λ needs a box/obj

eval (p) = v iff $p \rightarrow^* v$

\nearrow partial

may \nearrow not happen

$x \rightarrow y \rightarrow z \rightarrow 1/0 \rightarrow$

"stuck"

12-2) J_g $e := \dots \mid \text{abort } e$

$E[\text{abort } v] \Leftrightarrow v \quad \text{not } E[v]$

$\langle \text{abort } e, \text{env}, k \rangle \mapsto \langle e, \text{env}, \boxed{kret} \rangle$

$E[u \ v] \rightarrow E[\text{abort "not a fun"}]$
and $u \notin \lambda, p$

$E[\text{set-box! } x \ v] \rightarrow E[\text{abort "not a box"}]$
and $x \notin \sigma$

12-3 / Jq: $e = \dots \mid \text{throw } e$
 $\mid \text{try } e \text{ catch } e$

$\text{try } (x \mid (\text{throw } z))$ \Rightarrow \mid
 $\text{catch } (\lambda x. (- x \mid))$

$\Rightarrow (- z \mid)$ \nearrow

$L = E(\text{used to})$
 $\mid \dots$

$E = \dots \mid \text{try } e \text{ catch } E$ $\text{try } e \text{ catch } E$
 $\mid \text{try } E \text{ catch } v$ \leftarrow not this rule

$E[\text{try } v \text{ catch } u] \Rightarrow E[v]$

$E[\text{try } L[\text{throw } v] \text{ catch } u] \Rightarrow L[\text{throw } v]$
 $E[u \ v] \Rightarrow L[\text{about } v]$

12-4 / CEKS : $K = \dots \mid \text{preTry } k \ e \ \text{env } k$
 $\mid \text{try } k \ v \ k$

$\langle \text{try } e_b \ \text{catch } e_c, \ \text{env}, \ k \rangle$

$\mapsto \langle e_c, \ \text{env}, \ \text{preTry } k \ e_b \ \text{env } k \rangle$

$\langle v_n, \ _, \ \text{preTry } k \ e_b \ \text{env } k \rangle$

$\mapsto \langle e_b, \ \text{env}, \ \text{try } k \ v_n \ k \rangle$

$\langle \text{vans}, \ _, \ \text{try } k \ v_n \ k \rangle \mapsto \langle \text{vans}, \ _, \ k \rangle$

$\langle \text{throw } e, \ \text{env}, \ \text{try } k \ v_n \ k \rangle$

$\mapsto \langle e, \ \text{env}, \ \text{kapp } (v_n) \ _ \ _ \ k \rangle$

$\langle \text{throw } e, \ \text{env}, \ \text{preTry } k \ _ \ _ \ k \rangle$

$\mapsto \langle \text{throw } e, \ \text{env}, \ k \rangle$

$\langle \text{throw } e, \ \text{env}, \ \text{kif } _ \ _ \ _ \ k \rangle$

$\mapsto \langle \text{throw } e, \ \text{env}, \ k \rangle$

$\langle \text{throw } e, \ \text{env}, \ \text{kapp } _ \ _ \ _ \ k \rangle$

$\mapsto \langle \text{throw } e, \ \text{env}, \ k \rangle$

$\langle \text{throw } e, \ \text{env}, \ \text{kret} \rangle \mapsto \langle e, \ \text{env}, \ \text{kret} \rangle$