

$$\begin{aligned}
E-(1) &= \{1, 3, 4, 5, 10, 83, 84\} = T_0 \\
E-(\delta(T_0, CODE)) &= E-(2) = \{2\} = T_1 \\
E-(\delta(T_0, FDECL)) &= E-(8) = \{8, 3, 4, 5, 10, 83, 84\} = T_2 \\
E-(\delta(T_0, vtype)) &= E-(11) \cup E-(85) \cup E-(88) \\
&= \{11\} \cup \{85\} \cup \{88, 91\} = \{11, 85, 88, 91\} = T_3 \\
E-(\delta(T_0, VDECL)) &= E-(6) = \{6, 3, 4, 5, 10, 83, 84\} = T_4 \\
E-(\delta(T_2, CODE)) &= E-(9) = \{9\} = T_5 \\
E-(\delta(T_2, FDECL)) &= E-(8) = T_2 \\
E-(\delta(T_2, vtype)) &= E-(11) \cup E-(85) \cup E-(88) = T_3 \\
E-(\delta(T_2, VDECL)) &= E-(6) = T_4 \\
E-(\delta(T_3, id)) &= E-(12) \cup E-(86) \cup E-(92) \\
&= \{12\} \cup \{86\} \cup \{92\} = \{12, 86, 92\} = T_6 \\
E-(\delta(T_3, ASSIGN)) &= E-(89) = \{89\} = T_7 \\
E-(\delta(T_4, CODE)) &= E-(7) = \{7\} = T_8 \\
E-(\delta(T_4, VDECL)) &= E-(6) = T_4 \\
E-(\delta(T_4, vtype)) &= E-(11) \cup E-(85) \cup E-(88) = T_3 \\
E-(\delta(T_4, FDECL)) &= E-(8) = T_2 \\
E-(\delta(T_6, paren)) &= E-(13) = \{13, 28, 29\} = T_9 \\
E-(\delta(T_6, assign)) &= E-(93) = \{93, 96, 97, 100, 101, \\
&\quad 106, 107, 111, 113, 115, 117\} = T_{10} \\
E-(\delta(T_6, semi)) &= E-(89) = \{89\} = T_7 \\
E-(\delta(T_7, semi)) &= E-(99) = \{99\} = T_{12} \\
E-(\delta(T_9, ARG)) &= E-(14) = \{14\} = T_{13} \\
E-(\delta(T_9, vtype)) &= E-(30) = \{30\} = T_{14} \\
E-(\delta(T_{10}, RHS)) &= E-(94) = \{94\} = T_{15} \\
E-(\delta(T_{10}, literal)) &= E-(95) = \{95\} = T_{16} \\
E-(\delta(T_{10}, EXPR)) &= E-(98) = \{98\} = T_{17} \\
E-(\delta(T_{10}, TERM)) &= E-(99) \cup E-(102) = \{99, 102\} = T_{18} \\
E-(\delta(T_{10}, FACTOR)) &= E-(105) \cup E-(109) = \{105, 108\} = T_{19} \\
E-(\delta(T_{10}, float)) &= E-(112) = \{112\} = T_{20} \\
E-(\delta(T_{10}, num)) &= E-(114) = \{114\} = T_{21} \\
E-(\delta(T_{10}, id)) &= E-(116) = \{116\} = T_{22} \\
E-(\delta(T_{10}, paren)) &= E-(118) = \{118\} = T_{23} \\
E-(\delta(T_{13}, paren)) &= E-(15) = \{15\} = T_{24} \\
E-(\delta(T_{14}, id)) &= E-(31) = \{31, 33, 34\} = T_{25} \\
E-(\delta(T_{18}, addsub)) &= E-(103) = \{103, 100, 101, 106, 107, \\
&\quad 111, 113, 115, 117\} = T_{26} \\
E-(\delta(T_{14}, multdiv)) &= E-(104) = \{104, 106, 107, 111, 113, 115, 117\} = T_{27} \\
E-(\delta(T_{23}, EXPR)) &= E-(119) = \{119\} = T_{28} \\
E-(\delta(T_{123}, LEXM)) &= E-(99) \cup E-(102) = T_{18} \\
E-(\delta(T_{23}, FACTOR)) &= E-(105) \cup E-(109) = T_{19} \\
E-(\delta(T_{23}, float)) &= E-(112) = T_{20} \\
E-(\delta(T_{23}, num)) &= E-(114) = T_{21} \\
E-(\delta(T_{23}, id)) &= E-(116) = T_{22} \\
E-(\delta(T_{23}, paren)) &= E-(118) = T_{23} \\
E-(\delta(T_{24}, brace)) &= E-(16) = \{16, 24, 25, 39, 40, 41, 42, 43, 83, 84\} \\
&= T_{29} \\
E-(\delta(T_{25}, MOREARGS)) &= E-(32) = \{32\} = T_{30} \\
E-(\delta(T_{25}, comma)) &= E-(35) = \{35\} = T_{31} \\
E-(\delta(T_{26}, EXPR)) &= E-(104) = \{104\} = T_{32} \\
E-(\delta(T_{26}, TERM)) &= E-(99) \cup E-(102) = T_{18} \\
E-(\delta(T_{26}, FACTOR)) &= E-(105) \cup E-(109) = T_{19} \\
E-(\delta(T_{26}, float)) &= E-(112) = T_{20} \\
E-(\delta(T_{26}, num)) &= E-(114) = T_{21} \\
E-(\delta(T_{26}, id)) &= E-(116) = T_{22} \\
E-(\delta(T_{26}, paren)) &= E-(118) = T_{23} \\
E-(\delta(T_{29}, TERM)) &= E-(110) = \{110\} = T_{33} \\
E-(\delta(T_{29}, FACTOR)) &= E-(105) \cup E-(109) = T_{19} \\
E-(\delta(T_{29}, float)) &= E-(112) = T_{20} \\
E-(\delta(T_{29}, num)) &= E-(114) = T_{21} \\
E-(\delta(T_{29}, id)) &= E-(116) = T_{22} \\
E-(\delta(T_{29}, paren)) &= E-(118) = T_{23} \\
E-(\delta(T_{28}, paren)) &= E-(129) = \{129\} = T_{34} \\
E-(\delta(T_{29}, BLOCK)) &= E-(17) = \{17, 20\} = T_{35} \\
E-(\delta(T_{29}, STATE)) &= E-(26) = \{26, 24, 25, 39, 40, 41, 42, 43, 83, 84, 91\} \\
&= T_{36} \\
E-(\delta(T_{29}, VDECL)) &= E-(44) = \{44\} = T_{37} \\
E-(\delta(T_{29}, ASSIGN)) &= E-(45) = \{45\} = T_{38} \\
E-(\delta(T_{29}, id)) &= E-(47) = \{47\} = T_{39} \\
E-(\delta(T_{29}, while)) &= E-(81) = \{81\} = T_{40} \\
E-(\delta(T_{29}, for)) &= E-(12) = \{12\} = T_{41} \\
E-(\delta(T_{29}, vtype)) &= E-(85) \cup E-(88) = \{85, 88, 91\} = T_{42} \\
E-(\delta(T_{29}, id)) &= E-(91) = \{92\} = T_{43} \\
E-(\delta(T_{31}, vtype)) &= E-(86) = \{86\} = T_{44} \\
E-(\delta(T_{35}, RETURN)) &= E-(18) = \{18\} = T_{45} \\
E-(\delta(T_{35}, rotation)) &= E-(21) = \{21, 111, 113, 115, 117\} = T_{46} \\
E-(\delta(T_{36}, BLOCK)) &= E-(27) = \{27\} = T_{47} \\
E-(\delta(T_{30}, STATE)) &= E-(28) = T_{36}
\end{aligned}$$

$$\begin{aligned}
& \mathcal{E}(\delta(T_{37}, \text{VD ECL})) = \mathcal{E} - (44) = T_{37} \\
& \mathcal{E}(\delta(T_{38}, \text{ASSIGN})) = \mathcal{E} - (45) = T_{38} \\
& \mathcal{E}(\delta(T_{39}, \text{id})) = \mathcal{E} - (47) = \{47\} = T_{39} \\
& \mathcal{E}(\delta(T_{40}, \text{while})) = \mathcal{E} - (61) = \{61\} = T_{40} \\
& \mathcal{E}(\delta(T_{41}, \text{for})) = \mathcal{E} - (72) = \{72\} = T_{41} \\
& \mathcal{E}(\delta(T_{42}, \text{vtype})) = \mathcal{E} - (85) \cup \mathcal{E} - (88) = T_{42} \\
& \mathcal{E}(\delta(T_{43}, \text{id})) = \mathcal{E} - (92) = \{92\} = T_{43} \\
& \mathcal{E}(\delta(T_{48}, \text{semil})) = \mathcal{E} - (46) = \{46\} = T_{48} \\
& \mathcal{E}(\delta(T_{49}, \text{paren})) = \mathcal{E} - (48) = \{48, 68, 111, 113, 115, 117\} = T_{49} \\
& \mathcal{E}(\delta(T_{50}, \text{paren})) = \mathcal{E} - (62) = \{62, 68, 111, 113, 115, 117\} = T_{50} \\
& \mathcal{E}(\delta(T_{51}, \text{paren})) = \mathcal{E} - (73) = \{73, 91\} = T_{51} \\
& \mathcal{E}(\delta(T_{42}, \text{id})) = \mathcal{E} - (85) \cup \mathcal{E} - (92) = \{86\} \cup \{92\} \\
& \quad = \{86, 92\} = T_{52} \\
& \mathcal{E}(\delta(T_{42}, \text{ASSIGN})) = \mathcal{E} - (89) = T_{71} \\
& \mathcal{E}(\delta(T_{43}, \text{assign})) = \mathcal{E} - (93) = T_{50} \\
& \mathcal{E}(\delta(T_{44}, \text{id})) = \mathcal{E} - (37) = \{37, 33, 34\} = T_{53} \\
& \mathcal{E}(\delta(T_{45}, \text{braces})) = \mathcal{E} - (19) = \{19\} = T_{54} \\
& \mathcal{E}(\delta(T_{46}, \text{FACTOR})) = \mathcal{E} - (22) = \{22\} = T_{55} \\
& \mathcal{E}(\delta(T_{46}, \text{float})) = \mathcal{E} - (112) = T_{20} \\
& \mathcal{E}(\delta(T_{46}, \text{num})) = \mathcal{E} - (114) = T_{21} \\
& \mathcal{E}(\delta(T_{46}, \text{id})) = \mathcal{E} - (116) = T_{22} \\
& \mathcal{E}(\delta(T_{46}, \text{paren})) = \mathcal{E} - (118) = T_{23} \\
& \mathcal{E}(\delta(T_{49}, \text{CWND})) = \mathcal{E} - (49) = \{49\} = T_{56} \\
& \mathcal{E}(\delta(T_{49}, \text{FACTOR})) = \mathcal{E} - (69) = \{69\} = T_{57} \\
& \mathcal{E}(\delta(T_{49}, \text{float})) = \mathcal{E} - (112) = T_{20} \\
& \mathcal{E}(\delta(T_{49}, \text{num})) = \mathcal{E} - (114) = T_{21} \\
& \mathcal{E}(\delta(T_{49}, \text{id})) = \mathcal{E} - (116) = T_{22} \\
& \mathcal{E}(\delta(T_{49}, \text{paren})) = \mathcal{E} - (118) = T_{23} \\
& \mathcal{E}(\delta(T_{50}, \text{CWND})) = \mathcal{E} - (63) = \{63\} = T_{58} \\
& \mathcal{E}(\delta(T_{50}, \text{FACTOR})) = \mathcal{E} - (19) = T_{57} \\
& \mathcal{E}(\delta(T_{50}, \text{float})) = \mathcal{E} - (112) = T_{20} \\
& \mathcal{E}(\delta(T_{50}, \text{num})) = \mathcal{E} - (114) = T_{21} \\
& \mathcal{E}(\delta(T_{50}, \text{id})) = \mathcal{E} - (116) = T_{22} \\
& \mathcal{E}(\delta(T_{50}, \text{paren})) = \mathcal{E} - (118) = T_{23} \\
& \mathcal{E}(\delta(T_{51}, \text{ASSIGN})) = \mathcal{E} - (14) = \{74\} = T_{59} \\
& \mathcal{E}(\delta(T_{51}, \text{semil})) = \mathcal{E} - (42) = T_{43} \\
& \mathcal{E}(\delta(T_{52}, \text{assign})) = \mathcal{E} - (93) = T_{50} \\
& \mathcal{E}(\delta(T_{53}, \text{MOREFACTS})) = \mathcal{E} - (38) = \{38\} = T_{60} \\
& \mathcal{E}(\delta(T_{53}, \text{num})) = \mathcal{E} - (35) = T_{31} \\
& \mathcal{E}(\delta(T_{55}, \text{rem})) = \mathcal{E} - (23) = \{23\} = T_{61} \\
& \mathcal{E}(\delta(T_{56}, \text{paren})) = \mathcal{E} - (50) = \{50\} = T_{62} \\
& \mathcal{E}(\delta(T_{57}, \text{comp})) = \mathcal{E} - (70) = \{70, 111, 113, 115, 117\} = T_{63} \\
& \mathcal{E}(\delta(T_{58}, \text{paren})) = \mathcal{E} - (64) = \{64\} = T_{64} \\
& \mathcal{E}(\delta(T_{59}, \text{semil})) = \mathcal{E} - (75) = \{75, 68, 111, 113, 115, 117\} = T_{65} \\
& \mathcal{E}(\delta(T_{62}, \text{braces})) = \mathcal{E} - (51) = \{51, 24, 25, 39, 40, 41, 42, 43, 83, 84, 91\} \\
& \quad = T_{66} \\
& \mathcal{E}(\delta(T_{63}, \text{FACTOR})) = \mathcal{E} - (71) = \{71\} = T_{67} \\
& \mathcal{E}(\delta(T_{63}, \text{float})) = \mathcal{E} - (112) = T_{20} \\
& \mathcal{E}(\delta(T_{63}, \text{num})) = \mathcal{E} - (114) = T_{21} \\
& \mathcal{E}(\delta(T_{63}, \text{id})) = \mathcal{E} - (116) = T_{22} \\
& \mathcal{E}(\delta(T_{63}, \text{paren})) = \mathcal{E} - (118) = T_{23} \\
& \mathcal{E}(\delta(T_{64}, \text{braces})) = \mathcal{E} - (65) = \{65, 24, 25, 39, 40, 41, 42, 43, 83, 84, 91\} \\
& \quad = T_{68} \\
& \mathcal{E}(\delta(T_{65}, \text{CWND})) = \mathcal{E} - (78) = \{78\} = T_{69} \\
& \mathcal{E}(\delta(T_{65}, \text{FACTOR})) = \mathcal{E} - (69) = T_{57} \\
& \mathcal{E}(\delta(T_{65}, \text{float})) = \mathcal{E} - (112) = T_{20} \\
& \mathcal{E}(\delta(T_{65}, \text{num})) = \mathcal{E} - (114) = T_{21} \\
& \mathcal{E}(\delta(T_{65}, \text{id})) = \mathcal{E} - (116) = T_{22} \\
& \mathcal{E}(\delta(T_{65}, \text{paren})) = \mathcal{E} - (117) = T_{23} \\
& \mathcal{E}(\delta(T_{66}, \text{BLOCK})) = \mathcal{E} - (52) = \{52\} = T_{70} \\
& \mathcal{E}(\delta(T_{66}, \text{STM})) = \mathcal{E} - (26) = T_{36} \\
& \mathcal{E}(\delta(T_{66}, \text{VD ECL})) = \mathcal{E} - (44) = T_{37} \\
& \mathcal{E}(\delta(T_{66}, \text{ASSIGN})) = \mathcal{E} - (45) = T_{38} \\
& \mathcal{E}(\delta(T_{66}, \text{id})) = \mathcal{E} - (47) = T_{39} \\
& \mathcal{E}(\delta(T_{66}, \text{while})) = \mathcal{E} - (61) = T_{40} \\
& \mathcal{E}(\delta(T_{66}, \text{for})) = \mathcal{E} - (72) = T_{41} \\
& \mathcal{E}(\delta(T_{66}, \text{vtype})) = \mathcal{E} - (85) \cup \mathcal{E} - (88) = T_{42} \\
& \mathcal{E}(\delta(T_{66}, \text{id})) = \mathcal{E} - (92) = T_{43} \\
& \mathcal{E}(\delta(T_{68}, \text{BLOCK})) = \mathcal{E} - (66) = \{66\} = T_{71} \\
& \mathcal{E}(\delta(T_{68}, \text{STM})) = \mathcal{E} - (26) = T_{36} \\
& \mathcal{E}(\delta(T_{68}, \text{VD ECL})) = \mathcal{E} - (44) = T_{37} \\
& \mathcal{E}(\delta(T_{68}, \text{ASSIGN})) = \mathcal{E} - (45) = T_{38} \\
& \mathcal{E}(\delta(T_{68}, \text{id})) = \mathcal{E} - (47) = T_{39} \\
& \mathcal{E}(\delta(T_{68}, \text{while})) = \mathcal{E} - (61) = T_{40} \\
& \mathcal{E}(\delta(T_{68}, \text{for})) = \mathcal{E} - (72) = T_{41} \\
& \mathcal{E}(\delta(T_{68}, \text{vtype})) = \mathcal{E} - (85) \cup \mathcal{E} - (88) = T_{42} \\
& \mathcal{E}(\delta(T_{68}, \text{id})) = \mathcal{E} - (92) = T_{43}
\end{aligned}$$

$$\mathcal{E}(\delta(T_{69}, \text{sem})) = \mathcal{E}(\{77\}) = \{77, 91\} = T_{12}$$

$$\mathcal{E}(\delta(T_{70}, \text{rbrace})) = \mathcal{E}(\{53\}) = \{53, 55, 56\} = T_{73}$$

$$\mathcal{E}(\delta(T_{71}, \text{rbrace})) = \mathcal{E}(\{69\}) = \{67\} = T_{99}$$

$$\mathcal{E}(\delta(T_{72}, \text{ASSIGN})) = \mathcal{E}(\{18\}) = \{18\} = T_{75} \quad \mathcal{E}(\delta(T_{72}, \text{id})) = \mathcal{E}(\{12\}) = T_{43}$$

$$\mathcal{E}(\delta(T_{73}, \text{ELSE})) = \mathcal{E}(\{54\}) = \{54\} = T_{76}$$

$$\mathcal{E}(\delta(T_{73}, \text{else})) = \mathcal{E}(\{57\}) = \{57\} = T_{77}$$

$$\mathcal{E}(\delta(T_{75}, \text{rparen})) = \mathcal{E}(\{74\}) = \{74\} = T_{78}$$

$$\mathcal{E}(\delta(T_{77}, \text{brace})) = \mathcal{E}(\{58\}) = \{58, 24, 25, 39, 40, 41, 42, 43, 83, 84, 91\} = T_{79}$$

$$\mathcal{E}(\delta(T_{78}, \text{brace})) = \mathcal{E}(\{80\}) = \{80, 24, 25, 39, 40, 41, 42, 43, 83, 84, 91\} = T_{80}$$

$$\mathcal{E}(\delta(T_{79}, \text{BLOCK})) = \mathcal{E}(\{59\}) = \{59\} = T_{81}$$

$$\mathcal{E}(\delta(T_{79}, \text{STM})) = \mathcal{E}(\{26\}) = T_{36}$$

$$\mathcal{E}(\delta(T_{79}, \text{VDECL})) = \mathcal{E}(\{44\}) = T_{37}$$

$$\mathcal{E}(\delta(T_{79}, \text{ASSIGN})) = \mathcal{E}(\{45\}) = T_{38}$$

$$\mathcal{E}(\delta(T_{79}, \text{id})) = \mathcal{E}(\{47\}) = T_{39}$$

$$\mathcal{E}(\delta(T_{79}, \text{while})) = \mathcal{E}(\{61\}) = T_{40}$$

$$\mathcal{E}(\delta(T_{79}, \text{for})) = \mathcal{E}(\{12\}) = T_{41}$$

$$\mathcal{E}(\delta(T_{79}, \text{vtype})) = \mathcal{E}(\{85\}) \cup \mathcal{E}(\{88\}) = T_{42}$$

$$\mathcal{E}(\delta(T_{79}, \text{id})) = \mathcal{E}(\{12\}) = T_{43}$$

$$\mathcal{E}(\delta(T_{80}, \text{BLOCK})) = \mathcal{E}(\{81\}) = T_{82}$$

$$\mathcal{E}(\delta(T_{80}, \text{STM})) = \mathcal{E}(\{26\}) = T_{36}$$

$$\mathcal{E}(\delta(T_{80}, \text{VDECL})) = \mathcal{E}(\{44\}) = T_{37} \cup T_{38} = T_{39}$$

$$\mathcal{E}(\delta(T_{80}, \text{ASSIGN})) = \mathcal{E}(\{45\}) = T_{38}$$

$$\mathcal{E}(\delta(T_{80}, \text{id})) = \mathcal{E}(\{47\}) = T_{39}$$

$$\mathcal{E}(\delta(T_{80}, \text{while})) = \mathcal{E}(\{61\}) = T_{40}$$

$$\mathcal{E}(\delta(T_{80}, \text{for})) = \mathcal{E}(\{12\}) = T_{41}$$

$$\mathcal{E}(\delta(T_{80}, \text{vtype})) = \mathcal{E}(\{85\}) \cup \mathcal{E}(\{88\}) = T_{42}$$

$$\mathcal{E}(\delta(T_{80}, \text{id})) = \mathcal{E}(\{12\}) = T_{43}$$

$$\mathcal{E}(\delta(T_{81}, \text{brace})) = \mathcal{E}(\{60\}) = \{60\} = T_{83}$$

$$\mathcal{E}(\delta(T_{82}, \text{rbrace})) = \mathcal{E}(\{82\}) = \{82\} = T_{84}$$