

$$\llbracket \text{entry} \rrbracket = \{\}$$

$$\llbracket x = \text{io.read}() \rrbracket = \llbracket \text{entry} \rrbracket \downarrow x \cup \{x = \text{io.read}()\}$$

$$\llbracket \text{while } x > 2 \rrbracket = \llbracket x = \text{io.read}() \rrbracket \cup \llbracket z = z + 10 \rrbracket$$

$$\llbracket y = x/2 \rrbracket = \llbracket \text{while } x > 2 \rrbracket \downarrow y \cup \{y = x/2\}$$

$$\llbracket \text{if } y < 6 \rrbracket = \llbracket y = x/2 \rrbracket$$

$$\llbracket x = x + y \rrbracket = \llbracket \text{if } y < 6 \rrbracket \downarrow x \cup \{x = x + y\}$$

$$\llbracket z = x + 2 \rrbracket = (\llbracket x = x + y \rrbracket \cup \llbracket \text{if } y < 6 \rrbracket) \downarrow z \cup \{z = x + 2\}$$

$$\llbracket \text{if } z > 3 \rrbracket = \llbracket z = x + 2 \rrbracket$$

$$\llbracket x = x/2 \rrbracket = \llbracket \text{if } z > 3 \rrbracket \downarrow x \cup \{x = x/2\}$$

$$\llbracket z = z + 10 \rrbracket = (\llbracket x = x/2 \rrbracket \cup \llbracket \text{if } z > 3 \rrbracket) \downarrow z \cup \{z = x + 10\}$$

$$\llbracket \text{print}(x) \rrbracket = \llbracket \text{while } x > 2 \rrbracket$$

$$\llbracket \text{exit} \rrbracket = \llbracket \text{print}(x) \rrbracket$$