Regole di inferenza

Semantica big-step

$$\begin{aligned} \mathbf{B-Num} & \frac{-}{\langle n,s\rangle \Downarrow n} & \mathbf{B-Loc} & \frac{-}{\langle l,s\rangle \Downarrow s(l)} & \mathbf{B-Skip} & \frac{-}{\langle skip,s\rangle \Downarrow s} & \mathbf{B-Add} & \frac{\langle E_1,s\rangle \Downarrow n_1 & \langle E_2,s\rangle \Downarrow n_2}{\langle E_1+E_2\rangle \Downarrow n_3} & n_3 = add(n_1,n_2) \\ & & \mathbf{B-Assign} & \frac{\langle E,s\rangle \Downarrow n}{\langle l:=e,s\rangle \Downarrow s[l\mapsto n]} & \mathbf{B-Assign.s} & \frac{\langle E,s\rangle \Downarrow n}{\langle l:=e,s\rangle \Downarrow \langle skip,s[l\mapsto n]\rangle} & \mathbf{B-Seq} & \frac{\langle C_1,s\rangle \Downarrow s_1 & \langle C_2,s_1\rangle \Downarrow s'}{\langle C_1;C_2,s\rangle \Downarrow s'} \end{aligned}$$

$$\mathbf{B\text{-}Seq.s} \frac{\langle C_1, s \rangle \Downarrow \langle skip, s_1 \rangle \quad \langle C_2, s_1 \rangle \Downarrow \langle r, s' \rangle}{\langle C_1; C_2, s \rangle \Downarrow \langle r, s' \rangle}$$