Equation assignment sequence for variable s

| no | var | equ | quations | token |
|----|-----|-----|--|-------|
| 27 | 18 | - | $M^{A,\beta}{}_N$:: port variable | |
| 26 | 17 | _ | $M^{A,\alpha}_N$:: port variable | |
| 25 | 20 | _ | $M^{B,\delta}_{N}$:: port variable | |
| 24 | 19 | _ | $M^{B,\gamma}_N$:: port variable | |
| 23 | 14 | _ | $K^{A,\beta}{}_A::$ port variable | |
| 22 | 13 | _ | $K^{A,\alpha}{}_A :: $ port variable | |
| 21 | 16 | _ | $K^{B,\delta}{}_A::$ port variable | |
| 20 | 8 | _ | $F_{N,A}$:: port variable | |
| 19 | 15 | _ | $K^{B,\gamma}{}_A::$ port variable | |
| 18 | 3 | _ | # :: port variable | |
| 17 | 1 | _ | $t_N :: port variable$ | |
| 16 | 22 | 8 | $\pi^{A,\beta}{}_N := M^{A,\beta}{}_N \cdot x_N$ | |
| 15 | 21 | 7 | $\pi^{A,\alpha}{}_N := M^{A,\alpha}{}_N \cdot x_N$ | |
| 14 | 24 | 10 | $\pi^{B,\delta}{}_N := M^{B,\delta}{}_N \cdot y_N$ | |
| 13 | 23 | 9 | $\pi^{B,\gamma}{}_N := M^{B,\gamma}{}_N . y_N$ | |
| 12 | 26 | 12 | $\hat{x}^{A,\beta}{}_{N} := F_{N,A} \stackrel{A}{\star} \left(K^{A,\beta}{}_{A} \cdot F_{N,A} \stackrel{N}{\star} \pi^{A,\beta}{}_{N} \right)$ | |
| 11 | 25 | 11 | $\hat{x}^{A,\beta}{}_{N} := F_{N,A} \stackrel{A}{\star} \left(K^{A,\beta}{}_{A} \cdot F_{N,A} \stackrel{N}{\star} \pi^{A,\beta}{}_{N} \right)$ $\hat{x}^{A,\alpha}{}_{N} := F_{N,A} \stackrel{A}{\star} \left(K^{A,\alpha}{}_{A} \cdot F_{N,A} \stackrel{N}{\star} \pi^{A,\alpha}{}_{N} \right)$ | |
| 10 | 28 | 15 | $\hat{y}^{B,\delta}{}_N := F_{N,A} \stackrel{A}{\star} \left(K^{B,\delta}{}_A \cdot F_{N,A} \stackrel{N}{\star} \pi^{B,\delta}{}_N \right)$ | |

Continued on next page

| no | var | equ | quations | token |
|----|-----|-----|--|-------|
| 9 | 27 | 14 | $\hat{y}^{B,\gamma}{}_{N} := F_{N,A} \stackrel{A}{\star} \left(K^{B,\gamma}{}_{A} \cdot F_{N,A} \stackrel{N}{\star} \pi^{B,\gamma}{}_{N} \right)$ | |
| 8 | 29 | 16 | $\dot{x}_N := \hat{x}^{A,\alpha}{}_N + \hat{x}^{A,\beta}{}_N$ | |
| 7 | 11 | 5 | $x^o_N := \text{Instantiate}(x_N, \#)$ | |
| 6 | 7 | 4 | $t_{eN} := \text{Instantiate}(t_N, \#)$ | |
| 5 | 6 | 3 | $t_{oN} := \text{Instantiate}(t_N, \#)$ | |
| 4 | 30 | 17 | $\dot{y}_N \coloneqq \hat{y}^{B,\gamma}{}_N + \hat{y}^{B,\delta}{}_N$ | |
| 3 | 12 | 6 | $y^o_N := \text{Instantiate}(y_N, \#)$ | |
| 2 | 9 | 20 | $x_N := \int_{t_{o_N}}^{t_{e_N}} \dot{x}_N dt_N + x^o_N$ | |
| 1 | 10 | 21 | $y_N := \int_{t_{o_N}}^{t_{e_N}} \dot{y}_N \ dt_N + y^o_N$ | |
| 0 | 34 | 31 | $s := \text{MixedStack}(x_N, y_N)$ | |