

Equation assignment sequence for variable $xy_s tack$

no	var	equ	quations	token
36	31	-	$M^{B,\delta} :: \text{port variable}$	
35	22	-	$M^{B,\gamma} :: \text{port variable}$	
34	13	-	$F_{N,A} :: \text{port variable}$	
33	2	-	$\# :: \text{port variable}$	
32	1	-	$t_N :: \text{port variable}$	
31	10	43	$M^{A,\beta} := \text{Instantiate}(\#, \#)$	
30	9	42	$M^{A,\alpha} := \text{Instantiate}(\#, \#)$	
29	8	41	$K^{A,\beta}_N := \text{Instantiate}((t_N)^{-1}, \#)$	
28	12	15	$\pi^{A,\beta}_N := \text{Instantiate}(\pi^{A,\beta}_N, \#)$	
27	12	8	$\pi^{A,\beta}_N := M^{A,\beta} . x_N$	
26	7	40	$K^{A,\alpha}_N := \text{Instantiate}((t_N)^{-1}, \#)$	
25	11	7	$\pi^{A,\alpha}_N := M^{A,\alpha} . x_N$	
24	11	14	$\pi^{A,\alpha}_N := \text{Instantiate}(\pi^{A,\alpha}_N, \#)$	
23	33	32	$\pi^{B,\delta}_N := M^{B,\delta} . y_N$	
22	30	30	$K^{B,\delta}_N := \text{Instantiate}((t_N)^{-1}, \#)$	
21	24	23	$\pi^{B,\gamma}_N := M^{B,\gamma} . y_N$	
20	23	22	$K^{B,\gamma}_N := \text{Instantiate}((t_N)^{-1}, \#)$	
19	38	51	$\hat{x}^{A,\beta}_N := F_{N,A} \overset{A}{\star} \left(K^{A,\beta}_N . F_{N,A} \overset{N}{\star} \pi^{A,\beta}_N \right)$	

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no	var	equ	quations	token
18	38	65	$\hat{x}^{A,\beta}_N := \text{Instantiate}(\hat{x}^{A,\beta}_N, \#)$	
17	37	55	$\hat{x}^{A,\alpha}_N := \text{Instantiate}(\hat{x}^{A,\alpha}_N, \#)$	
16	37	50	$\hat{x}^{A,\alpha}_N := F_{N,A} \overset{A}{\star} \left(K^{A,\alpha}_N \cdot F_{N,A} \overset{N}{\star} \pi^{A,\alpha}_N \right)$	
15	18	16	$0 := \text{Instantiate}(\#, \#)$	
14	40	54	$\hat{y}^{B,\delta}_N := \text{Instantiate}(\hat{y}^{B,\delta}_N, \#)$	
13	40	53	$\hat{y}^{B,\delta}_N := F_{N,A} \overset{A}{\star} \left(K^{B,\delta}_N \cdot F_{N,A} \overset{N}{\star} \pi^{B,\delta}_N \right)$	
12	39	52	$\hat{y}^{B,\gamma}_N := F_{N,A} \overset{A}{\star} \left(K^{B,\gamma}_N \cdot F_{N,A} \overset{N}{\star} \pi^{B,\gamma}_N \right)$	
11	39	57	$\hat{y}^{B,\gamma}_N := \text{Instantiate}(\hat{y}^{B,\gamma}_N, \#)$	
10	17	12	$x^o_N := \text{Instantiate}(x_N, \#)$	
9	16	58	$\dot{x}_N := \hat{x}^{A,\alpha}_N + \hat{x}^{A,\beta}_N$	
8	16	18	$\dot{x}_N := \text{Instantiate}(\dot{x}_N, 0)$	
7	4	2	$t^e_N := \text{Instantiate}(t_N, \#)$	
6	3	1	$t^o_N := \text{Instantiate}(t_N, \#)$	
5	27	26	$y^o_N := \text{Instantiate}(y_N, \#)$	
4	26	36	$\dot{y}_N := \text{Instantiate}(\dot{y}_N, \#)$	
3	26	59	$\dot{y}_N := \hat{y}^{B,\gamma}_N + \hat{y}^{B,\delta}_N$	
2	5	62	$x_N := \int_{t^o_N}^{t^e_N} \dot{x}_N \, dt_N + x^o_N$	
1	21	63	$y_N := \int_{t^o_N}^{t^e_N} \dot{y}_N \, dt_N + y^o_N$	
0	41	64	$xy_{stack} := \text{MixedStack}(x_N, y_N)$	