Equation assignment sequence for variable K

no	var	equ	quations	token
99	26	-	$N_{S,K}$ :: port variable	
98	19	-	$A_{N,p,q}$ :: port variable	
97	10	-	$S_{I,q}$ :: port variable	
96	27	-	$I_{N,A}$ :: port variable	
95	2	-	$F_{N,A}$ :: port variable	
94	132	-	λ_S :: port variable	
93	25	-	r_{zN} :: port variable	
92	24	-	r_{yN} :: port variable	
91	23	-	r_{xN} :: port variable	
90	101	-	$\#$ :: port variable	
89	1	-	t :: port variable	
88	109	-	S_N :: port variable	
87	108	-	U_N :: port variable	
86	3	-	${F^{source}}_{N,I}$ :: port variable	
85	9	-	$S_{I,p}$ :: port variable	
84	4	-	${F^{sink}}_{N,I}$ :: port variable	
83	122	-	k^B :: port variable	
82	121	-	N^A :: port variable	

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no	var	equ	quations	token
81	198	-	${K^o}_K$ :: port variable	
80	197	-	${E^a}_K$ :: port variable	
79	164	171	$\_x := {F^{source}}_{N,I} \overset{N}{\star} x_{N,S}$	
78	165	169	$x := \left({F^{sink}}_{N,I} \cdot \_x_{I,S}\right) \overset{I}{\star} S_{I,p}$	
77	168	167	$f := {x_{N,S,p}}^{((\lvert N_{S,K} \rvert))}$	
76	169	165	$\xi := \prod_S f_{N,S,K,p}$	
75	200	161	$\tilde{n} := A_{N,p,q} \overset{p}{\star} \left(N_{S,K} \overset{K}{\star} \left(K_{N,K,p} \cdot \xi_{N,K,p}\right)\right)$	
74	139	160	$n^t := \mathbf{reduceSum}\left(n_{N,S}, S\right)$	
73	143	159	$\rho := \left({V_N}\right)^{-1} \cdot m_N$	
72	201	156	$\_np := \mathbf{reduceSum}\left(\left(\left({F^{source}}_{N,I} \overset{N}{\star} \tilde{n}_{N,S,q}\right) \cdot S_{I,q}\right), q\right)$	
71	120	155	$v_z := \frac{\partial {r_z}_N}{\partial t}$	
70	119	154	$v_y := \frac{\partial {r_y}_N}{\partial t}$	
69	118	153	$v_x := \frac{\partial {r_x}_N}{\partial t}$	
68	161	152	$\mu^o := \mathbf{Instantiate}(\mu_{N,S}, \#)$	
67	140	150	$x := \left({n^t}_N\right)^{-1} \cdot n_{N,S}$	
66	189	148	$\rho := I_{N,A} \overset{N}{\star} \rho_N$	
65	183	147	$k_x^c := I_{N,A} \overset{N}{\star} \left(\left(\lambda_S \overset{S}{\star} \left(\mu_{N,S}\right)^{-1}\right) \cdot \left(V_N\right)^{-1} \cdot \frac{\partial U_N}{\partial p_N} \cdot v_{xN}\right)$	
64	157	146	$d := \mathbf{sign}\left(F_{N,A} \overset{N}{\star} p_N\right)$	
63	104	145	$0.5 := \mathbf{Instantiate}(\#, \#)$	
62	202	143	$\tilde{n} := {F^{source}}_{N,I} \overset{I}{\star} \_np_{I,S}$	

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no	var	equ	quations	token
61	195	142	$\dot{n}_x^d := F_{N,A} \overset{A}{\star} \hat{n}_{xA,S}^d$	
60	194	141	$\dot{n}_x^c := F_{N,A} \overset{A}{\star} \hat{n}_{xA,S}^c$	
59	188	140	$k_z^q := I_{N,A} \overset{N}{\star} \left((V_N)^{-1} \,.\, C_{pN} \,.\, v_{zN} \right)$	
58	187	139	$k_y^q := I_{N,A} \overset{N}{\star} \left((V_N)^{-1} \,.\, C_{pN} \,.\, v_{yN} \right)$	
57	186	138	$k_x^q := I_{N,A} \overset{N}{\star} \left((V_N)^{-1} \,.\, C_{pN} \,.\, v_{xN} \right)$	
56	182	137	$k_z^d := I_{N,A} \overset{N}{\star} \left((\mu_{N,S})^{-1} \,.\, \left(v_{zN} \,.\, \left((V_N)^{-1} \,.\, \frac{\partial U_N}{\partial \mu_{N,S}} \right) \right) \right)$	
55	192	135	$\hat{k}_z^{d,Fick} := I_{N,A} \overset{N}{\star} \left(v_{zN} \,.\, \frac{\partial U_N}{\partial \mu_{N,S}} \,.\, (n_{N,S})^{-1} \right)$	
54	148	134	$A_{xy} := r_{xN} \,.\, r_{yN}$	
53	181	133	$k_y^d := I_{N,A} \overset{N}{\star} \left((\mu_{N,S})^{-1} \,.\, \left(v_{yN} \,.\, \left((V_N)^{-1} \,.\, \frac{\partial U_N}{\partial \mu_{N,S}} \right) \right) \right)$	
52	191	131	$\hat{k}_y^{d,Fick} := I_{N,A} \overset{N}{\star} \left(v_{yN} \,.\, \frac{\partial U_N}{\partial \mu_{N,S}} \,.\, (n_{N,S})^{-1} \right)$	
51	149	130	$A_{xz} := r_{xN} \,.\, r_{zN}$	
50	190	129	$\hat{k}_x^{d,Fick} := I_{N,A} \overset{N}{\star} \left(v_{xN} \,.\, \frac{\partial U_N}{\partial \mu_{N,S}} \,.\, (n_{N,S})^{-1} \right)$	
49	138	128	$c := (V_N)^{-1} \,.\, n_{N,S}$	
48	180	125	$k_x^d := I_{N,A} \overset{N}{\star} \left((\mu_{N,S})^{-1} \,.\, \left(v_{xN} \,.\, \left((V_N)^{-1} \,.\, \frac{\partial U_N}{\partial \mu_{N,S}} \right) \right) \right)$	
47	150	124	$A_{yz} := r_{yN} \,.\, r_{zN}$	
46	114	121	$\mu := \mu^o{}_{N,S} + R \,.\, T_N \,.\, \mathbf{ln} \left(x_{N,S} \right)$	
45	114	120	$\mu := \frac{\partial U_N}{\partial n_{N,S}}$	
44	159	117	$\hat{V} := (\rho_A)^{-1} \,.\, k_{xA}^c \,.\, A_{yzN} \,.\, F_{N,A} \overset{N}{\star} p_N$	
43	158	114	$c := (0.5 \,.\, (F_{N,A} - d_A \,.\, \lvert F_{N,A} \rvert)) \overset{N}{\star} c_{N,S}$	
42	203	113	$n^o := \mathbf{Instantiate}(n_{N,S}, \#)$	

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no	var	equ	quations	token
41	196	109	$\dot{n} := \dot{n}^{c}_{xN,S} + \dot{n}^{d}_{xN,S} + V_N \,.\, \tilde{n}_{N,S}$	
40	211	108	$\hat{w} := \mathbf{Instantiate}(\hat{q}_{xA}, \#)$	
39	153	106	$\hat{q}_z := k^{q}_{zA} \,.\, A_{xyN} \,.\, F_{N,A} \overset{N}{\star} T_N$	
38	152	104	$\hat{q}_y := k^{q}_{yA} \,.\, A_{xzN} \,.\, F_{N,A} \overset{N}{\star} T_N$	
37	151	102	$\hat{q}_x := k^{q}_{xA} \,.\, A_{yzN} \,.\, F_{N,A} \overset{N}{\star} T_N$	
36	156	100	$\hat{n}^{d}_{z} := k^{d}_{zA,S} \,.\, (A_{xyN} \,.\, F_{N,A}) \overset{N}{\star} \mu_{N,S}$	
35	156	97	$\hat{n}^{d}_{z} := \hat{k}^{d,Fick}_{zA,S} \,.\, (A_{xyN} \,.\, F_{N,A}) \overset{N}{\star} c_{N,S}$	
34	155	95	$\hat{n}^{d}_{y} := k^{d}_{yA,S} \,.\, (A_{yzN} \,.\, F_{N,A}) \overset{N}{\star} \mu_{N,S}$	
33	155	92	$\hat{n}^{d}_{y} := \hat{k}^{d,Fick}_{yA,S} \,.\, A_{xzN} \,.\, F_{N,A} \overset{N}{\star} c_{N,S}$	
32	154	89	$\hat{n}^{d}_{x} := \hat{k}^{d,Fick}_{xA,S} \,.\, A_{yzN} \,.\, F_{N,A} \overset{N}{\star} c_{N,S}$	
31	154	85	$\hat{n}^{d}_{x} := k^{d}_{xA,S} \,.\, (A_{yzN} \,.\, F_{N,A}) \overset{N}{\star} \mu_{N,S}$	
30	160	82	$\hat{n}^{c}_{x} := \hat{V}_A \,.\, c_{A,S}$	
29	136	81	$h := H_N \,.\, (n_{N,S})^{-1}$	
28	111	78	$n := \int_{t^o}^{t^e} \dot{n}_{N,S} \; dt + n^{o}{}_{N,S}$	
27	214	76	$\dot{w} := F_{N,A} \overset{A}{\star} \hat{w}_A$	
26	210	74	$\dot{q}_z := F_{N,A} \overset{A}{\star} \hat{q}_{zA}$	
25	209	72	$\dot{q}_y := F_{N,A} \overset{A}{\star} \hat{q}_{yA}$	
24	208	70	$\dot{q}_x := F_{N,A} \overset{A}{\star} \hat{q}_{xA}$	
23	207	68	$\dot{H}^{d}_{z} := F_{N,A} \overset{A}{\star} \left(\hat{n}^{d}_{zA,S} \overset{S}{\star} h_{N,S} \right)$	
22	206	66	$\dot{H}^{d}_{y} := F_{N,A} \overset{A}{\star} \left(\hat{n}^{d}_{yA,S} \overset{S}{\star} h_{N,S} \right)$	

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no	var	equ	quations	token
21	205	64	$\dot{H}^d_x := F_{N,A} \overset{A}{\star} \left(\hat{n}^d_{xA,S} \overset{S}{\star} h_{N,S} \right)$	
20	204	60	$\dot{H}^c_x := F_{N,A} \overset{A}{\star} \left(\hat{n}^c_{xA,S} \overset{S}{\star} h_{N,S} \right)$	
19	141	59	$c_p := \mathbf{Instantiate}(c_{pN}, \#)$	
18	141	58	$c_p := C_{pN} \,.\, (m_N)^{-1}$	
17	137	55	$m := \lambda_S \overset{S}{\star} n_{N,S}$	
16	112	54	$p := \frac{\partial U_N}{\partial V_N}$	
15	110	50	$V := r_{xN} \,.\, r_{yN} \,.\, r_{zN}$	
14	216	49	$H^o := \mathbf{Instantiate}(H_N, \#)$	
13	215	40	$\dot{H} := \dot{H}^c_{xN} + \dot{H}^d_{xN} + \dot{H}^d_{yN} + \dot{H}^d_{zN} + \dot{q}_{xN} + \dot{q}_{yN} + \dot{q}_{zN} + \dot{w}_N$	
12	106	39	$t^e := \mathbf{Instantiate}(t, \#)$	
11	105	38	$t^o := \mathbf{Instantiate}(t, \#)$	
10	222	36	$T^{ref} := \mathbf{Instantiate}(T_N, \#)$	
9	124	33	$C_p := m_N \,.\, c_{pN}$	
8	124	32	$C_p := \frac{\partial H_N}{\partial T_N}$	
7	115	29	$H := U_N - p_N \,.\, V_N$	
6	115	23	$H := \int_{t^o}^{t^e} \dot{H}_N \; dt + {H^o}_N$	
5	113	20	$T := \frac{\partial U_N}{\partial S_N}$	
4	113	16	$T := H_N \,.\, (C_{pN})^{-1} + {T^{ref}}_N$	
3	166	13	$\_T := {F^{source}}_{N,I} \overset{N}{\star} T_N$	
2	167	9	$T := \left({F^{sink}}_{N,I} \,.\, \_T_I \right) \overset{I}{\star} S_{I,p}$	

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no	var	equ	quations	token
1	123	6	$R := N^{A} \,.\, k^{B}$	
0	199	1	$K := K^{o}{}_{K} \,.\, \mathbf{exp}\left((-E^{a}{}_{K}) \;.\; (R \,.\, T_{N,p})^{-1} \right)$	