Equation assignment sequence for variable C_V

no	var	equ	quations	token
100	9	-	$S_{I,p}$ :: port variable	
99	4	-	${F^{sink}}_{N,I}$ :: port variable	
98	198	-	${K^o}_K$ :: port variable	
97	197	-	${E^a}_K$ :: port variable	
96	26	-	$N_{S,K}$ :: port variable	
95	19	-	$A_{N,p,q}$ :: port variable	
94	10	-	$S_{I,q}$ :: port variable	
93	122	-	k^B :: port variable	
92	121	-	N^A :: port variable	
91	3	-	${F^{source}}_{N,I}$ :: port variable	
90	27	-	$I_{N,A}$ :: port variable	
89	2	-	$F_{N,A}$ :: port variable	
88	132	-	λ_S :: port variable	
87	25	-	r_{zN} :: port variable	
86	24	-	r_{yN} :: port variable	
85	23	-	r_{xN} :: port variable	
84	101	-	# :: port variable	
83	1	-	t :: port variable	

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no	var	equ	quations	token
82	109	-	S_N :: port variable	
81	108	-	U_N :: port variable	
80	164	173	$\_x := {F^{source}}_{N,I} \overset{N}{\star} x_{N,S}$	
79	166	172	$\_T := {F^{source}}_{N,I} \overset{N}{\star} T_N$	
78	165	170	$x := \left({F^{sink}}_{N,I} \cdot \_x_{I,S}\right) \overset{I}{\star} S_{I,p}$	
77	167	166	$T := \left({F^{sink}}_{N,I} \cdot \_T_I\right) \overset{I}{\star} S_{I,p}$	
76	168	164	$f := {x_{N,S,p}}^{((\lvert N_{S,K} \rvert))}$	
75	199	160	$K := {K^o}_K \,.\, \mathbf{exp}\left((-{E^a}_K) \,.\, (R \,.\, T_{N,p})^{-1}\right)$	
74	169	158	$\xi := \prod_S f_{N,S,K,p}$	
73	200	153	$\tilde{n} := A_{N,p,q} \overset{p}{\star} \left(N_{S,K} \overset{K}{\star} (K_{N,K,p} \,.\, \xi_{N,K,p})\right)$	
72	139	152	$n^t := \mathbf{reduceSum}\,(n_{N,S}, S)$	
71	143	151	$\rho := (V_N)^{-1} \,.\, m_N$	
70	201	148	$\_np := \mathbf{reduceSum}\left(\left(\left({F^{source}}_{N,I} \overset{N}{\star} \tilde{n}_{N,S,q}\right) \,.\, S_{I,q}\right), q\right)$	
69	120	147	$v_z := \frac{\partial {r_z}_N}{\partial t}$	
68	119	146	$v_y := \frac{\partial {r_y}_N}{\partial t}$	
67	161	145	$\mu^o := \mathbf{Instantiate}(\mu_{N,S}, \#)$	
66	140	143	$x := ({n^t}_N)^{-1} \,.\, n_{N,S}$	
65	123	140	$R := N^A \,.\, k^B$	
64	118	139	$v_x := \frac{\partial {r_x}_N}{\partial t}$	
63	189	137	$\rho := I_{N,A} \overset{N}{\star} \rho_N$	

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no	var	equ	quations	token
62	183	136	$k_x^c := I_{N,A} \overset{N}{\star} \left(\left(\lambda_S \overset{S}{\star} (\mu_{N,S})^{-1} \right) . (V_N)^{-1} . \frac{\partial U_N}{\partial p_N} . v_{xN} \right)$	
61	157	135	$d := \mathbf{sign} \left(F_{N,A} \overset{N}{\star} p_N \right)$	
60	104	134	$0.5 := \mathbf{Instantiate}(\#, \#)$	
59	202	131	$\tilde{n} := {F^{source}}_{N,I} \overset{I}{\star} \_np_{I,S}$	
58	195	130	$\dot{n}_x^d := F_{N,A} \overset{A}{\star} \hat{n}_{xA,S}^d$	
57	194	129	$\dot{n}_x^c := F_{N,A} \overset{A}{\star} \hat{n}_{xA,S}^c$	
56	188	128	$k_z^q := I_{N,A} \overset{N}{\star} \left((V_N)^{-1} . C_{pN} . v_{zN} \right)$	
55	187	127	$k_y^q := I_{N,A} \overset{N}{\star} \left((V_N)^{-1} . C_{pN} . v_{yN} \right)$	
54	186	126	$k_x^q := I_{N,A} \overset{N}{\star} \left((V_N)^{-1} . C_{pN} . v_{xN} \right)$	
53	192	125	$\hat{k}_z^{d,Fick} := I_{N,A} \overset{N}{\star} \left(v_{zN} . \frac{\partial U_N}{\partial \mu_{N,S}} . (n_{N,S})^{-1} \right)$	
52	182	123	$k_z^d := I_{N,A} \overset{N}{\star} \left((\mu_{N,S})^{-1} . \left(v_{zN} . \left((V_N)^{-1} . \frac{\partial U_N}{\partial \mu_{N,S}} \right) \right) \right)$	
51	148	122	$A_{xy} := r_{xN} . r_{yN}$	
50	181	121	$k_y^d := I_{N,A} \overset{N}{\star} \left((\mu_{N,S})^{-1} . \left(v_{yN} . \left((V_N)^{-1} . \frac{\partial U_N}{\partial \mu_{N,S}} \right) \right) \right)$	
49	191	119	$\hat{k}_y^{d,Fick} := I_{N,A} \overset{N}{\star} \left(v_{yN} . \frac{\partial U_N}{\partial \mu_{N,S}} . (n_{N,S})^{-1} \right)$	
48	149	118	$A_{xz} := r_{xN} . r_{zN}$	
47	180	117	$k_x^d := I_{N,A} \overset{N}{\star} \left((\mu_{N,S})^{-1} . \left(v_{xN} . \left((V_N)^{-1} . \frac{\partial U_N}{\partial \mu_{N,S}} \right) \right) \right)$	
46	114	113	$\mu := {\mu^o}_{N,S} + R . T_N . \mathbf{ln} (x_{N,S})$	
45	114	112	$\mu := \frac{\partial U_N}{\partial n_{N,S}}$	
44	190	109	$\hat{k}_x^{d,Fick} := I_{N,A} \overset{N}{\star} \left(v_{xN} . \frac{\partial U_N}{\partial \mu_{N,S}} . (n_{N,S})^{-1} \right)$	
43	150	108	$A_{yz} := r_{yN} . r_{zN}$	

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no	var	equ	quations	token
42	138	107	$c := (V_N)^{-1} \,.\, n_{N,S}$	
41	159	104	$\hat{V} := (\rho_A)^{-1} \,.\, k^c_{xA} \,.\, A_{yzN} \,.\, F_{N,A} \overset{N}{\star} p_N$	
40	158	101	$c := (0.5 \,.\, (F_{N,A} - d_A \,.\, \lvert F_{N,A} \rvert)) \overset{N}{\star} c_{N,S}$	
39	203	100	$n^o := \mathbf{Instantiate}(n_{N,S}, \#)$	
38	196	96	$\dot{n} := \dot{n}^c_{xN,S} + \dot{n}^d_{xN,S} + V_N \,.\, \tilde{n}_{N,S}$	
37	211	95	$\hat{w} := \mathbf{Instantiate}(\hat{q}_{xA}, \#)$	
36	153	93	$\hat{q}_z := k^q_{zA} \,.\, A_{xyN} \,.\, F_{N,A} \overset{N}{\star} T_N$	
35	152	91	$\hat{q}_y := k^q_{yA} \,.\, A_{xzN} \,.\, F_{N,A} \overset{N}{\star} T_N$	
34	151	89	$\hat{q}_x := k^q_{xA} \,.\, A_{yzN} \,.\, F_{N,A} \overset{N}{\star} T_N$	
33	156	87	$\hat{n}^d_z := \hat{k}^{d,Fick}{}_{A,S} \,.\, (A_{xyN} \,.\, F_{N,A}) \overset{N}{\star} c_{N,S}$	
32	156	84	$\hat{n}^d_z := k^d_{zA,S} \,.\, (A_{xyN} \,.\, F_{N,A}) \overset{N}{\star} \mu_{N,S}$	
31	155	82	$\hat{n}^d_y := k^d_{yA,S} \,.\, (A_{yzN} \,.\, F_{N,A}) \overset{N}{\star} \mu_{N,S}$	
30	155	79	$\hat{n}^d_y := \hat{k}^{d,Fick}{}_{A,S} \,.\, A_{xzN} \,.\, F_{N,A} \overset{N}{\star} c_{N,S}$	
29	154	76	$\hat{n}^d_x := k^d_{xA,S} \,.\, (A_{yzN} \,.\, F_{N,A}) \overset{N}{\star} \mu_{N,S}$	
28	154	72	$\hat{n}^d_x := \hat{k}^{d,Fick}{}_{A,S} \,.\, A_{yzN} \,.\, F_{N,A} \overset{N}{\star} c_{N,S}$	
27	160	69	$\hat{n}^c_x := \hat{V}_A \,.\, c_{A,S}$	
26	136	68	$h := H_N \,.\, (n_{N,S})^{-1}$	
25	111	65	$n := \int_{t^o}^{t^e} \dot{n}_{N,S} \; dt + n^o{}_{N,S}$	
24	214	63	$\dot{w} := F_{N,A} \overset{A}{\star} \hat{w}_A$	
23	210	61	$\dot{q}_z := F_{N,A} \overset{A}{\star} \hat{q}_{zA}$	

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no	var	equ	quations	token
22	209	59	$\dot{q}_y := F_{N,A} \overset{A}{\star} \hat{q}_{yA}$	
21	208	57	$\dot{q}_x := F_{N,A} \overset{A}{\star} \hat{q}_{xA}$	
20	207	55	$\dot{H}^d_z := F_{N,A} \overset{A}{\star} \left(\hat{n}^d_{zA,S} \overset{S}{\star} h_{N,S} \right)$	
19	206	53	$\dot{H}^d_y := F_{N,A} \overset{A}{\star} \left(\hat{n}^d_{yA,S} \overset{S}{\star} h_{N,S} \right)$	
18	205	51	$\dot{H}^d_x := F_{N,A} \overset{A}{\star} \left(\hat{n}^d_{xA,S} \overset{S}{\star} h_{N,S} \right)$	
17	204	47	$\dot{H}^c_x := F_{N,A} \overset{A}{\star} \left(\hat{n}^c_{xA,S} \overset{S}{\star} h_{N,S} \right)$	
16	141	46	$c_p := \mathbf{Instantiate}(c_{pN}, \#)$	
15	141	45	$c_p := C_{pN} \,.\, (m_N)^{-1}$	
14	137	42	$m := \lambda_S \overset{S}{\star} n_{N,S}$	
13	216	41	$H^o := \mathbf{Instantiate}(H_N, \#)$	
12	215	32	$\dot{H} := \dot{H}^c_{xN} + \dot{H}^d_{xN} + \dot{H}^d_{yN} + \dot{H}^d_{zN} + \dot{q}_{xN} + \dot{q}_{yN} + \dot{q}_{zN} + \dot{w}_N$	
11	106	31	$t^e := \mathbf{Instantiate}(t, \#)$	
10	105	30	$t^o := \mathbf{Instantiate}(t, \#)$	
9	112	29	$p := \frac{\partial U_N}{\partial V_N}$	
8	110	25	$V := r_{xN} \,.\, r_{yN} \,.\, r_{zN}$	
7	222	23	$T^{ref} := \mathbf{Instantiate}(T_N, \#)$	
6	124	22	$C_p := \frac{\partial H_N}{\partial T_N}$	
5	124	19	$C_p := m_N \,.\, c_{pN}$	
4	115	13	$H := \int_{t^o}^{t^e} \dot{H}_N \;\, d\,t + H^o{}_N$	
3	115	10	$H := U_N - p_N \,.\, V_N$	

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no	var	equ	quations	token
2	113	6	$T := H_N \,.\, (C_{pN})^{-1} + T^{ref}{}_N$	
1	113	4	$T := \frac{\partial U_N}{\partial S_N}$	
0	125	1	$C_V := \frac{\partial U_N}{\partial T_N}$	