

	A	B	C	D	E
1	Grady Sullivan				
2	10/5/201				
3	ECE 202 - E2 (part b)				
4	Three Dampings for Parallel RLC				
5					
6	$v1(t) = A1e^{-(s1t)+A2e^{-(s2t)}}$				
7	$v2(t) = Ae^{-(a2t)+Bte^{-(a2t)}}$				
8	$v3(t) = ae^{-(a3t)\cos(wt)+be^{-(a3t)}\sin(wt)}$				
9					
10	<b>t min (ms)</b>		<b>s1 (Hz)</b>	<b>a 2 (Hz)</b>	<b>a 3 (Hz)</b>
11	0	-800		500	120
12					
13	<b>t max (ms)</b>		<b>s2 (Hz)</b>	<b>A (V)</b>	<b>w (rad/s)</b>
14	40	-200		12	450
15					
16	<b>N (intervals)</b>		<b>A1 (V)</b>	<b>B (V)</b>	<b>a (V)</b>
17	400	16		-6000	12
18					
19	<b>dt (ms)</b>		<b>A2 (V)</b>		<b>b (V)</b>
20	=(A14-A11)/A17	-4			-5
21					
22	<b>t (ms)</b>	<b>t (s)</b>	<b>v1(t) (V)</b>	<b>v2(t) (V)</b>	<b>v3(t) (V)</b>
23	=A11	=A23/1000	=(C\$17*EXP(C\$11*B23)+C\$20*EXP(C\$14*B23)	=D\$14*EXP(-D\$11*B23)+D\$17*B23*EXP(-D\$11*B23)	=EXP(-E\$11*B23)*(E\$17*COS(B23*E\$14)+E\$20*SIN(B23*E\$14))
24	=A23+A\$20	=A24/1000	=(C\$17*EXP(C\$11*B24)+C\$20*EXP(C\$14*B24)	=D\$14*EXP(-D\$11*B24)+D\$17*B24*EXP(-D\$11*B24)	=EXP(-E\$11*B24)*(E\$17*COS(B24*E\$14)+E\$20*SIN(B24*E\$14))
25	=A24+A\$20	=A25/1000	=(C\$17*EXP(C\$11*B25)+C\$20*EXP(C\$14*B25)	=D\$14*EXP(-D\$11*B25)+D\$17*B25*EXP(-D\$11*B25)	=EXP(-E\$11*B25)*(E\$17*COS(B25*E\$14)+E\$20*SIN(B25*E\$14))
26	=A25+A\$20	=A26/1000	=(C\$17*EXP(C\$11*B26)+C\$20*EXP(C\$14*B26)	=D\$14*EXP(-D\$11*B26)+D\$17*B26*EXP(-D\$11*B26)	=EXP(-E\$11*B26)*(E\$17*COS(B26*E\$14)+E\$20*SIN(B26*E\$14))
27	=A26+A\$20	=A27/1000	=(C\$17*EXP(C\$11*B27)+C\$20*EXP(C\$14*B27)	=D\$14*EXP(-D\$11*B27)+D\$17*B27*EXP(-D\$11*B27)	=EXP(-E\$11*B27)*(E\$17*COS(B27*E\$14)+E\$20*SIN(B27*E\$14))
28	=A27+A\$20	=A28/1000	=(C\$17*EXP(C\$11*B28)+C\$20*EXP(C\$14*B28)	=D\$14*EXP(-D\$11*B28)+D\$17*B28*EXP(-D\$11*B28)	=EXP(-E\$11*B28)*(E\$17*COS(B28*E\$14)+E\$20*SIN(B28*E\$14))
29	=A28+A\$20	=A29/1000	=(C\$17*EXP(C\$11*B29)+C\$20*EXP(C\$14*B29)	=D\$14*EXP(-D\$11*B29)+D\$17*B29*EXP(-D\$11*B29)	=EXP(-E\$11*B29)*(E\$17*COS(B29*E\$14)+E\$20*SIN(B29*E\$14))
30	=A29+A\$20	=A30/1000	=(C\$17*EXP(C\$11*B30)+C\$20*EXP(C\$14*B30)	=D\$14*EXP(-D\$11*B30)+D\$17*B30*EXP(-D\$11*B30)	=EXP(-E\$11*B30)*(E\$17*COS(B30*E\$14)+E\$20*SIN(B30*E\$14))
31	=A30+A\$20	=A31/1000	=(C\$17*EXP(C\$11*B31)+C\$20*EXP(C\$14*B31)	=D\$14*EXP(-D\$11*B31)+D\$17*B31*EXP(-D\$11*B31)	=EXP(-E\$11*B31)*(E\$17*COS(B31*E\$14)+E\$20*SIN(B31*E\$14))
32	=A31+A\$20	=A32/1000	=(C\$17*EXP(C\$11*B32)+C\$20*EXP(C\$14*B32)	=D\$14*EXP(-D\$11*B32)+D\$17*B32*EXP(-D\$11*B32)	=EXP(-E\$11*B32)*(E\$17*COS(B32*E\$14)+E\$20*SIN(B32*E\$14))
33	=A32+A\$20	=A33/1000	=(C\$17*EXP(C\$11*B33)+C\$20*EXP(C\$14*B33)	=D\$14*EXP(-D\$11*B33)+D\$17*B33*EXP(-D\$11*B33)	=EXP(-E\$11*B33)*(E\$17*COS(B33*E\$14)+E\$20*SIN(B33*E\$14))
34	=A33+A\$20	=A34/1000	=(C\$17*EXP(C\$11*B34)+C\$20*EXP(C\$14*B34)	=D\$14*EXP(-D\$11*B34)+D\$17*B34*EXP(-D\$11*B34)	=EXP(-E\$11*B34)*(E\$17*COS(B34*E\$14)+E\$20*SIN(B34*E\$14))
35	=A34+A\$20	=A35/1000	=(C\$17*EXP(C\$11*B35)+C\$20*EXP(C\$14*B35)	=D\$14*EXP(-D\$11*B35)+D\$17*B35*EXP(-D\$11*B35)	=EXP(-E\$11*B35)*(E\$17*COS(B35*E\$14)+E\$20*SIN(B35*E\$14))
36	=A35+A\$20	=A36/1000	=(C\$17*EXP(C\$11*B36)+C\$20*EXP(C\$14*B36)	=D\$14*EXP(-D\$11*B36)+D\$17*B36*EXP(-D\$11*B36)	=EXP(-E\$11*B36)*(E\$17*COS(B36*E\$14)+E\$20*SIN(B36*E\$14))
37	=A36+A\$20	=A37/1000	=(C\$17*EXP(C\$11*B37)+C\$20*EXP(C\$14*B37)	=D\$14*EXP(-D\$11*B37)+D\$17*B37*EXP(-D\$11*B37)	=EXP(-E\$11*B37)*(E\$17*COS(B37*E\$14)+E\$20*SIN(B37*E\$14))
38	=A37+A\$20	=A38/1000	=(C\$17*EXP(C\$11*B38)+C\$20*EXP(C\$14*B38)	=D\$14*EXP(-D\$11*B38)+D\$17*B38*EXP(-D\$11*B38)	=EXP(-E\$11*B38)*(E\$17*COS(B38*E\$14)+E\$20*SIN(B38*E\$14))
39	=A38+A\$20	=A39/1000	=(C\$17*EXP(C\$11*B39)+C\$20*EXP(C\$14*B39)	=D\$14*EXP(-D\$11*B39)+D\$17*B39*EXP(-D\$11*B39)	=EXP(-E\$11*B39)*(E\$17*COS(B39*E\$14)+E\$20*SIN(B39*E\$14))
40	=A39+A\$20	=A40/1000	=(C\$17*EXP(C\$11*B40)+C\$20*EXP(C\$14*B40)	=D\$14*EXP(-D\$11*B40)+D\$17*B40*EXP(-D\$11*B40)	=EXP(-E\$11*B40)*(E\$17*COS(B40*E\$14)+E\$20*SIN(B40*E\$14))
41	=A40+A\$20	=A41/1000	=(C\$17*EXP(C\$11*B41)+C\$20*EXP(C\$14*B41)	=D\$14*EXP(-D\$11*B41)+D\$17*B41*EXP(-D\$11*B41)	=EXP(-E\$11*B41)*(E\$17*COS(B41*E\$14)+E\$20*SIN(B41*E\$14))
42	=A41+A\$20	=A42/1000	=(C\$17*EXP(C\$11*B42)+C\$20*EXP(C\$14*B42)	=D\$14*EXP(-D\$11*B42)+D\$17*B42*EXP(-D\$11*B42)	=EXP(-E\$11*B42)*(E\$17*COS(B42*E\$14)+E\$20*SIN(B42*E\$14))
43	=A42+A\$20	=A43/1000	=(C\$17*EXP(C\$11*B43)+C\$20*EXP(C\$14*B43)	=D\$14*EXP(-D\$11*B43)+D\$17*B43*EXP(-D\$11*B43)	=EXP(-E\$11*B43)*(E\$17*COS(B43*E\$14)+E\$20*SIN(B43*E\$14))
44	=A43+A\$20	=A44/1000	=(C\$17*EXP(C\$11*B44)+C\$20*EXP(C\$14*B44)	=D\$14*EXP(-D\$11*B44)+D\$17*B44*EXP(-D\$11*B44)	=EXP(-E\$11*B44)*(E\$17*COS(B44*E\$14)+E\$20*SIN(B44*E\$14))
45	=A44+A\$20	=A45/1000	=(C\$17*EXP(C\$11*B45)+C\$20*EXP(C\$14*B45)	=D\$14*EXP(-D\$11*B45)+D\$17*B45*EXP(-D\$11*B45)	=EXP(-E\$11*B45)*(E\$17*COS(B45*E\$14)+E\$20*SIN(B45*E\$14))
46	=A45+A\$20	=A46/1000	=(C\$17*EXP(C\$11*B46)+C\$20*EXP(C\$14*B46)	=D\$14*EXP(-D\$11*B46)+D\$17*B46*EXP(-D\$11*B46)	=EXP(-E\$11*B46)*(E\$17*COS(B46*E\$14)+E\$20*SIN(B46*E\$14))
47	=A46+A\$20	=A47/1000	=(C\$17*EXP(C\$11*B47)+C\$20*EXP(C\$14*B47)	=D\$14*EXP(-D\$11*B47)+D\$17*B47*EXP(-D\$11*B47)	=EXP(-E\$11*B47)*(E\$17*COS(B47*E\$14)+E\$20*SIN(B47*E\$14))
48	=A47+A\$20	=A48/1000	=(C\$17*EXP(C\$11*B48)+C\$20*EXP(C\$14*B48)	=D\$14*EXP(-D\$11*B48)+D\$17*B48*EXP(-D\$11*B48)	=EXP(-E\$11*B48)*(E\$17*COS(B48*E\$14)+E\$20*SIN(B48*E\$14))
49	=A48+A\$20	=A49/1000	=(C\$17*EXP(C\$11*B49)+C\$20*EXP(C\$14*B49)	=D\$14*EXP(-D\$11*B49)+D\$17*B49*EXP(-D\$11*B49)	=EXP(-E\$11*B49)*(E\$17*COS(B49*E\$14)+E\$20*SIN(B49*E\$14))
50	=A49+A\$20	=A50/1000	=(C\$17*EXP(C\$11*B50)+C\$20*EXP(C\$14*B50)	=D\$14*EXP(-D\$11*B50)+D\$17*B50*EXP(-D\$11*B50)	=EXP(-E\$11*B50)*(E\$17*COS(B50*E\$14)+E\$20*SIN(B50*E\$14))
51	=A50+A\$20	=A51/1000	=(C\$17*EXP(C\$11*B51)+C\$20*EXP(C\$14*B51)	=D\$14*EXP(-D\$11*B51)+D\$17*B51*EXP(-D\$11*B51)	=EXP(-E\$11*B51)*(E\$17*COS(B51*E\$14)+E\$20*SIN(B51*E\$14))
52	=A51+A\$20	=A52/1000	=(C\$17*EXP(C\$11*B52)+C\$20*EXP(C\$14*B52)	=D\$14*EXP(-D\$11*B52)+D\$17*B52*EXP(-D\$11*B52)	=EXP(-E\$11*B52)*(E\$17*COS(B52*E\$14)+E\$20*SIN(B52*E\$14))
53	=A52+A\$20	=A53/1000	=(C\$17*EXP(C\$11*B53)+C\$20*EXP(C\$14*B53)	=D\$14*EXP(-D\$11*B53)+D\$17*B53*EXP(-D\$11*B53)	=EXP(-E\$11*B53)*(E\$17*COS(B53*E\$14)+E\$20*SIN(B53*E\$14))
54	=A53+A\$20	=A54/1000	=(C\$17*EXP(C\$11*B54)+C\$20*EXP(C\$14*B54)	=D\$14*EXP(-D\$11*B54)+D\$17*B54*EXP(-D\$11*B54)	=EXP(-E\$11*B54)*(E\$17*COS(B54*E\$14)+E\$20*SIN(B54*E\$14))
55	=A54+A\$20	=A55/1000	=(C\$17*EXP(C\$11*B55)+C\$20*EXP(C\$14*B55)	=D\$14*EXP(-D\$11*B55)+D\$17*B55*EXP(-D\$11*B55)	=EXP(-E\$11*B55)*(E\$17*COS(B55*E\$14)+E\$20*SIN(B55*E\$14))
56	=A55+A\$20	=A56/1000	=(C\$17*EXP(C\$11*B56)+C\$20*EXP(C\$14*B56)	=D\$14*EXP(-D\$11*B56)+D\$17*B56*EXP(-D\$11*B56)	=EXP(-E\$11*B56)*(E\$17*COS(B56*E\$14)+E\$20*SIN(B56*E\$14))
57	=A56+A\$20	=A57/1000	=(C\$17*EXP(C\$11*B57)+C\$20*EXP(C\$14*B57)	=D\$14*EXP(-D\$11*B57)+D\$17*B57*EXP(-D\$11*B57)	=EXP(-E\$11*B57)*(E\$17*COS(B57*E\$14)+E\$20*SIN(B57*E\$14))
58	=A57+A\$20	=A58/1000	=(C\$17*EXP(C\$11*B58)+C\$20*EXP(C\$14*B58)	=D\$14*EXP(-D\$11*B58)+D\$17*B58*EXP(-D\$11*B58)	=EXP(-E\$11*B58)*(E\$17*COS(B58*E\$14)+E\$20*SIN(B58*E\$14))
59	=A58+A\$20	=A59/1000	=(C\$17*EXP(C\$11*B59)+C\$20*EXP(C\$14*B59)	=D\$14*EXP(-D\$11*B59)+D\$17*B59*EXP(-D\$11*B59)	=EXP(-E\$11*B59)*(E\$17*COS(B59*E\$14)+E\$20*SIN(B59*E\$14))
60	=A59+A\$20	=A60/1000	=(C\$17*EXP(C\$11*B60)+C\$20*EXP(C\$14*B60)	=D\$14*EXP(-D\$11*B60)+D\$17*B60*EXP(-D\$11*B60)	=EXP(-E\$11*B60)*(E\$17*COS(B60*E\$14)+E\$20*SIN(B60*E\$14))
61	=A60+A\$20	=A61/1000	=(C\$17*EXP(C\$11*B61)+C\$20*EXP(C\$14*B61)	=D\$14*EXP(-D\$11*B61)+D\$17*B61*EXP(-D\$11*B61)	=EXP(-E\$11*B61)*(E\$17*COS(B61*E\$14)+E\$20*SIN(B61*E\$14))
62	=A61+A\$20	=A62/1000	=(C\$17*EXP(C\$11*B62)+C\$20*EXP(C\$14*B62)	=D\$14*EXP(-D\$11*B62)+D\$17*B62*EXP(-D\$11*B62)	=EXP(-E\$11*B62)*(E\$17*COS(B62*E\$14)+E\$20*SIN(B62*E\$14))
63	=A62+A\$20	=A63/1000	=(C\$17*EXP(C\$11*B63)+C\$20*EXP(C\$14*B63)	=D\$14*EXP(-D\$11*B63)+D\$17*B63*EXP(-D\$11*B63)	=EXP(-E\$11*B63)*(E\$17*COS(B63*E\$14)+E\$20*SIN(B63*E\$14))
64	=A63+A\$20	=A64/1000	=(C\$17*EXP(C\$11*B64)+C\$20*EXP(C\$14*B64)	=D\$14*EXP(-D\$11*B64)+D\$17*B64*EXP(-D\$11*B64)	=EXP(-E\$11*B64)*(E\$17*COS(B64*E\$14)+E\$20*SIN(B64*E\$14))
65	=A64+A\$20	=A65/1000	=(C\$17*EXP(C\$11*B65)+C\$20*EXP(C\$14*B65)	=D\$14*EXP(-D\$11*B65)+D\$17*B65*EXP(-D\$11*B65)	=EXP(-E\$11*B65)*(E\$17*COS(B65*E\$14)+E\$20*SIN(B65*E\$14))
66	=A65+A\$20	=A66/1000	=(C\$17*EXP(C\$11*B66)+C\$20*EXP(C\$14*B66)	=D\$14*EXP(-D\$11*B66)+D\$17*B66*EXP(-D\$11*B66)	=EXP(-E\$11*B66)*(E\$17*COS(B66*E\$14)+E\$20*SIN(B66*E\$14))
67	=A66+A\$20	=A67/1000	=(C\$17*EXP(C\$11*B67)+C\$20*EXP(C\$14*B67)	=D\$14*EXP(-D\$11*B67)+D\$17*B67*EXP(-D\$11*B67)	=EXP(-E\$11*B67)*(E\$17*COS(B67*E\$14)+E\$20*SIN(B67*E\$14))
68	=A67+A\$20	=A68/1000	=(C\$17*EXP(C\$11*B68)+C\$20*EXP(C\$14*B68)	=D\$14*EXP(-D\$11*B68)+D\$17*B68*EXP(-D\$11*B68)	=EXP(-E\$11*B68)*(E\$17*COS(B68*E\$14)+E\$20*SIN(B68*E\$14))
69	=A68+A\$20	=A69/1000	=(C\$17*EXP(C\$11*B69)+C\$20*EXP(C\$14*B69)	=D\$14*EXP(-D\$11*B69)+D\$17*B69*EXP(-D\$11*B69)	=EXP(-E\$11*B69)*(E\$17*COS(B69*E\$14)+E\$20*SIN(B69*E\$14))
70	=A69+A\$20	=A70/1000	=(C\$17*EXP(C\$11*B70)+C\$20*EXP(C\$14*B70)	=D\$14*EXP(-D\$11*B70)+D\$17*B70*EXP(-D\$11*B70)	=EXP(-E\$11*B70)*(E\$17*COS(B70*E\$14)+E\$20*SIN(B70*E\$14))
71	=A70+A\$20	=A71/1000	=(C\$17*EXP(C\$11*B71)+C\$20*EXP(C\$14*B71)	=D\$14*EXP(-D\$11*B71)+D\$17*B71*EXP(-D\$11*B71)	=EXP(-E\$11*B71)*(E\$17*COS(B71*E\$14)+E\$20*SIN(B71*E\$14))
72	=A71+A\$20	=A72/1000	=(C\$17*EXP(C\$11*B72)+C\$20*EXP(C\$14*B72)	=D\$14*EXP(-D\$11*B72)+D\$17*B72*EXP(-D\$11*B72)	=EXP(-E\$11*B72)*(E\$17*COS(B72*E\$14)+E\$20*SIN(B72*E\$14))
73	=A72+A\$20	=A73/1000	=(C\$17*EXP(C\$11*B73)+C\$20*EXP(C\$14*B73)	=D\$14*EXP(-D\$11*B73)+D\$17*B73*EXP(-D\$11*B73)	=EXP(-E\$11*B73)*(E\$17*COS(B73*E\$14)+E\$20*SIN(B73*E\$14))
74	=A73+A\$20	=A74/1000	=(C\$17*EXP(C\$11*B74)+C\$20*EXP(C\$14*B74)	=D\$14*EXP(-D\$11*B74)+D\$17*B74*EXP(-D\$11*B74)	=EXP(-E\$11*B74)*(E\$17*COS(B74*E\$14)+E\$20*SIN(B74*E\$14))
75	=A74+A\$20	=A75/1000	=(C\$17*EXP(C\$11*B75)+C\$20*EXP(C\$14*B75)	=D\$14*EXP(-D\$11*B75)+D\$17*B75*EXP(-D\$11*B75)	=EXP(-E\$11*B75)*(E\$17*COS(B75*E\$14)+E\$20*SIN(B75*E\$14))
76	=A75+A\$20	=A76/1000	=(C\$17*EXP(C\$11*B76)+C\$20*EXP(C\$14*B76)	=D\$14*EXP(-D\$11*B76)+D\$17*B76*EXP(-D\$11*B76)	=EXP(-E\$11*B76)*(E\$17*COS(B76*E\$14)+E\$20*SIN(B76*E\$14))
77	=A76+A\$20	=A77/1000	=(C\$17*EXP(C\$11*B77)+C\$20*EXP(C\$14*B77)	=D\$14*EXP(-D\$11*B77)+D\$17*B77*EXP(-D\$11*B77)	=EXP(-E\$11*B77)*(E\$17*COS(B77*E\$14)+E\$20*SIN(B77*E\$14))
78	=A77+A\$20	=A78/1000	=(C\$17*EXP(C\$11*B78)+C\$20*EXP(C\$14*B78)	=D\$14*EXP(-D\$11*B78)+D\$17*B78*EXP(-D\$11*B78)	=EXP(-E\$11*B78)*(E\$17*COS(B78*E\$14)+E\$20*SIN(B78*E\$14))
79	=A78+A\$20	=A79/1000	=(C\$17*EXP(C\$11*B79)+C\$20*EXP(C\$14*B79)	=D\$14*EXP(-D\$11*B79)+D\$17*B79*EXP(-D\$11*B79)	=EXP(-E\$11*B79)*(E\$17*COS(B79*E\$14)+E\$20*SIN(B79*E\$14))
80	=A79+A\$20	=A80/1000	=(C\$17*EXP(C\$11*B80)+C\$20*EXP(C\$14*B80)	=D\$14*EXP(-D\$11*B80)+D\$17*B80*EXP(-D\$11*B80)	=EXP(-E\$11*B80)*(E\$17*COS(B80*E\$14)+E\$20*SIN(B80*E\$14))
81	=A80+A\$20	=A81/1000	=(C\$17*EXP(C\$11*B81)+C\$20*EXP(C\$14*B81)	=D\$14*EXP(-D\$11*B81)+D\$17*B81*EXP(-D\$11*B81)	=EXP(-E\$11*B81)*(E\$17*COS(B81*E\$14)+E\$20*SIN(B81*E\$14))
82	=A81+A\$20	=A82/1000	=(C\$17*EXP(C\$11*B82)+C\$20*EXP(C\$14*B82)	=D\$14*EXP(-D\$11*B82)+D\$17*B82*EXP(-D\$11*B82)	=EXP(-E\$11*B82)*(E\$17*COS(B82*E\$14)+E\$20*SIN(B82*E\$14))
83	=A82+A\$20	=A83/1000	=(C\$17*EXP(C\$11*B83)+C\$20*EXP(C\$14*B83)	=D\$14*EXP(-D\$11*B83)+D\$17*B83*EXP(-D\$11*B83)	=EXP(-E\$11*B83)*(E\$17*COS(B83*E\$14)+E\$20*SIN(B83*E\$14))
84	=A83+A\$20	=A84/1000	=(C\$17*EXP(C\$11*B84)+C\$20*EXP(C\$14*B84)	=D\$14*EXP(-D\$11*B84)+D\$17*B84*EXP(-D\$11*B84)	=EXP(-E\$11*B84)*(E\$17*COS(B84*E\$14)+E\$20*SIN(B84*E\$14))
85	=A84+A\$20	=A85/1000	=(C\$17*EXP(C\$11*B85)+C\$20*EXP(C\$14*B85)	=D\$14*EXP(-D\$11*B85)+D\$17*B85*EXP(-D\$11*B85)	=EXP(-E\$11*B85)*(E\$17*COS(B85*E\$14)+E\$20*SIN(B85*E\$14))
86	=A85+A\$20	=A86/1000	=(C\$17*EXP(C\$11*B86)+C\$20*EXP(C\$14*B86)	=D\$14*EXP(-D\$11*B86)+D\$17*B86*EXP(-D\$11*B86)	=EXP(-E\$11*B86)*(E\$17*COS(B86*E\$14)+E\$20*SIN(B86*E\$14))
87	=A86+A\$20	=A87/1000	=(C\$17*EXP(C\$11*B87)+C\$20*EXP(C\$14*B87)	=D\$14*EXP(-D\$11*B87)+D\$17*B87*EXP(-D\$11*B87)	=EXP(-E\$11*B87)*(E\$17*COS(B87*E\$14)+E\$20*SIN(B87*E\$14))
88	=A87+A\$20	=A88/1000	=(C\$17*EXP(C\$11*B88)+C\$20*EXP(C\$14*B88)	=D\$14*EXP(-D\$11*B88)+D\$17*B88*EXP(-D\$11*B88)	=EXP(-E\$11*B88)*(E\$17*COS(B88*E\$14)+E\$20*SIN(B88*E\$14))
89	=A88+A\$20	=A89/1000	=(C\$17*EXP(C\$11*B89)+C\$20*EXP(C\$14*B89)	=D\$14*EXP(-D\$11*B89)+D\$17*B89*EXP(-D\$11*B89)	=EXP(-E\$11*B89)*(E\$17*COS(B89*E\$14)+E\$20*SIN(B89*E\$14))
90	=A89+A\$20	=A90/1000	=(C\$17*EXP(C\$11*B90)+C\$20*EXP(C\$14*B90)	=D\$14*EXP(-D\$11*B90)+D\$17*B90*EXP(-D\$11*B90)	=EXP(-E\$11*B90)*(E\$17*COS(B90*E\$14)+E\$20*SIN(B90*E\$14))
91	=A90+A\$20	=A91/1000	=(C\$17*EXP(C\$11*B91)+C\$20*EXP(C\$14*B91)	=D\$14*EXP(-D\$11*B91)+D\$17*B91*EXP(-D\$11*B91)	=EXP(-E\$11*B91)*(E\$17*COS(B91*E\$14)+E\$20*SIN(B91*E\$14))
92	=A91+A\$20	=A92/1000	=(C\$17*EXP(C\$11*B92)+C\$20*EXP(C\$14*B92)	=D\$14*EXP(-D\$11*B92)+D\$17*B92*EXP(-D\$11*B92)	=EXP(-E\$11*B92)*(E\$17*COS(B92*E\$14)+E\$20*SIN(B92*E\$14))
93	=A92+A\$20	=A93/1000	=(C\$17*EXP(C\$11*B93)+C\$20*EXP(C\$14*B93)	=D\$14*EXP(-D\$11*B93)+D\$17*B93*EXP(-D\$11*B93)	=EXP(-E\$11*B93)*(E\$17*COS(B93*E\$14)+E\$20*SIN(B93*E\$14))
94	=A93+A\$20	=A94/1000	=(C\$17*EXP(C\$11*B94)+C\$20*EXP(C\$14*B94)	=D\$14*EXP(-D\$11*B94)+D\$17*B94*EXP(-D\$11*B94)	=EXP(-E\$11*B94)*(E\$17*COS(B94*E\$14)+E\$20*SIN(B94*E\$14))
95	=A94+A\$20	=A95/1000	=(C\$17*EXP(C\$11*B95)+C\$20*EXP(C\$14*B95)	=D\$14*EXP(-D\$11*B95)+D\$17*B95*EXP(-D\$11*B95)	=EXP(-E\$11*B95)*(E\$17*COS(B95*E\$14)+E\$20*SIN(B95*E\$14))
96	=A95+A\$20	=A96/1000	=(C\$17*EXP(C\$11*B96)+C\$20*EXP(C\$14*B96)	=D\$14*EXP(-D\$11*B96)+D\$17*B96*EXP(-D\$11*B96)	=EXP(-E\$11*B96)*(E\$17*COS(B96*E\$14)+E\$20*SIN(B96*E\$14))
97	=A96+A\$20	=A97/1000	=(C\$17*EXP(C\$		