	A	B	C	D	E	F
1	Grady Sullivan					
2	43746			Chance of Heads (part b)	Chance of Heads (part c)	
3	ECE 202 - E3			=1-D6	=1-E6	
4	N "weighted" coins					
5				Chance of Tails (part b)	Chance of Tails (part c)	
6	number of coins (N)	10		0.5	0.4	
7	number of microstate (2^N)	=2^B6				
8	number of macrostates (1+N)	=1+B6				
9						
10	Macrostates (n heads showing)	# of Microstates	Probability P(n)	Probability (weighted) P(n) - 50/50	Probability (weighted) P(n) - 60/40	Check: Probability Difference (between column C and D)
11	0	=FACT(B$6)/(FACT(B$6-A11)*FACT(A11))	=B11/B$7	=$B11*D$3^$A11*D$6^(B6-$A11)	=$B11*E$3^$A11*E$6^(B6-$A11)	=C11-D11
12	=1+A11	=FACT(B$6)/(FACT(B$6-A12)*FACT(A12))	=B12/B$7	=$B12*D$3^$A12*D$6^(B6-$A12)	=$B12*E$3^$A12*E$6^(B6-$A12)	=C12-D12
13	=1+A12	=FACT(B$6)/(FACT(B$6-A13)*FACT(A13))	=B13/B$7	=$B13*D$3^$A13*D$6^(B6-$A13)	=$B13*E$3^$A13*E$6^(B6-$A13)	=C13-D13
14	=1+A13	=FACT(B$6)/(FACT(B$6-A14)*FACT(A14))	=B14/B$7	=$B14*D$3^$A14*D$6^(B6-$A14)	=$B14*E$3^$A14*E$6^(B6-$A14)	=C14-D14
15	=1+A14	=FACT(B$6)/(FACT(B$6-A15)*FACT(A15))	=B15/B$7	=$B15*D$3^$A15*D$6^(B6-$A15)	=$B15*E$3^$A15*E$6^(B6-$A15)	=C15-D15
16	=1+A15	=FACT(B$6)/(FACT(B$6-A16)*FACT(A16))	=B16/B$7	=$B16*D$3^$A16*D$6^(B6-$A16)	=$B16*E$3^$A16*E$6^(B6-$A16)	=C16-D16
17	=1+A16	=FACT(B$6)/(FACT(B$6-A17)*FACT(A17))	=B17/B$7	=$B17*D$3^$A17*D$6^(B6-$A17)	=$B17*E$3^$A17*E$6^(B6-$A17)	=C17-D17
18	=1+A17	=FACT(B$6)/(FACT(B$6-A18)*FACT(A18))	=B18/B$7	=$B18*D$3^$A18*D$6^(B6-$A18)	=$B18*E$3^$A18*E$6^(B6-$A18)	=C18-D18
19	=1+A18	=FACT(B$6)/(FACT(B$6-A19)*FACT(A19))	=B19/B$7	=$B19*D$3^$A19*D$6^(B6-$A19)	=$B19*E$3^$A19*E$6^(B6-$A19)	=C19-D19
20	=1+A19	=FACT(B$6)/(FACT(B$6-A20)*FACT(A20))	=B20/B$7	=$B20*D$3^$A20*D$6^(B6-$A20)	=$B20*E$3^$A20*E$6^(B6-$A20)	=C20-D20
21	=1+A20	=FACT(B$6)/(FACT(B$6-A21)*FACT(A21))	=B21/B$7	=$B21*D$3^$A21*D$6^(B6-$A21)	=$B21*E$3^$A21*E$6^(B6-$A21)	=C21-D21
22						
23	TOTAL # of microstates (sum)	=SUM(B11:B22)	=SUM(C11:C22)	=SUM(D11:D22)	=SUM(E11:E22)	
24				5 heads is most likely to occur	6 heads is most likely to occur	
25	CHECK total # of microstates	=B23-B7				
26	(should be zero)					
27						
28	check total probability		=SUM(C11:C21)	=SUM(D11:D21)	=SUM(E11:E21)	
29	(should be 1 or 100%)					