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Simulating P(n), probability of n heads out of 20 throws from any pTails and up to 2000 trials

	A	B	C	D	E
	input # of trials (up to 2,000)	input pTails		# of coins	pHeads (q)
	2000	0.5		20	=1-B7
	smallest macrostate	count T	count H	check pTails	
	= MIN(G:G)	= COUNTIF(0:X,"T")	=COUNTIF(X,"H")	= B7-B10/(B10+C10)	
	largest macrostate	count trials			
	= MAX(F:F)	=COUNT(0:H)			
	macrostate #	(simulation) # of trials	(simulation) prob p(n) %		
	= IF(A7<0,A10,"")	=IF(A16="","",COUNTIF(F:F,A16))	= IF(A16="","",B16/A$7)		
	= IF(OR(A16="",A16=A$12),"",A16+1)	=IF(A17="","",COUNTIF(F:F,A17))	= IF(A17="","",B17/A$7)		
	= IF(OR(A17="",A17=A$12),"",A17+1)	=IF(A18="","",COUNTIF(F:F,A18))	= IF(A18="","",B18/A$7)		
	= IF(OR(A18="",A18=A$12),"",A18+1)	=IF(A19="","",COUNTIF(F:F,A19))	= IF(A19="","",B19/A$7)		
	= IF(OR(A19="",A19=A$12),"",A19+1)	=IF(A20="","",COUNTIF(F:F,A20))	= IF(A20="","",B20/A$7)		
	= IF(OR(A20="",A20=A$12),"",A20+1)	=IF(A21="","",COUNTIF(F:F,A21))	= IF(A21="","",B21/A$7)		
	= IF(OR(A21="",A21=A$12),"",A21+1)	=IF(A22="","",COUNTIF(F:F,A22))	= IF(A22="","",B22/A$7)		
	= IF(OR(A22="",A22=A$12),"",A22+1)	=IF(A23="","",COUNTIF(F:F,A23))	= IF(A23="","",B23/A$7)		
	= IF(OR(A23="",A23=A$12),"",A23+1)	=IF(A24="","",COUNTIF(F:F,A24))	= IF(A24="","",B24/A$7)		
	= IF(OR(A24="",A24=A$12),"",A24+1)	=IF(A25="","",COUNTIF(F:F,A25))	= IF(A25="","",B25/A$7)		
	= IF(OR(A25="",A25=A$12),"",A25+1)	=IF(A26="","",COUNTIF(F:F,A26))	= IF(A26="","",B26/A$7)		
	= IF(OR(A26="",A26=A$12),"",A26+1)	=IF(A27="","",COUNTIF(F:F,A27))	= IF(A27="","",B27/A$7)		
	= IF(OR(A27="",A27=A$12),"",A27+1)	=IF(A28="","",COUNTIF(F:F,A28))	= IF(A28="","",B28/A$7)		
	= IF(OR(A28="",A28=A$12),"",A28+1)	=IF(A29="","",COUNTIF(F:F,A29))	= IF(A29="","",B29/A$7)		
	= IF(OR(A29="",A29=A$12),"",A29+1)	=IF(A30="","",COUNTIF(F:F,A30))	= IF(A30="","",B30/A$7)		
	= IF(OR(A30="",A30=A$12),"",A30+1)	=IF(A31="","",COUNTIF(F:F,A31))	= IF(A31="","",B31/A$7)		
	= IF(OR(A31="",A31=A$12),"",A31+1)	=IF(A32="","",COUNTIF(F:F,A32))	= IF(A32="","",B32/A$7)		
	= IF(OR(A32="",A32=A$12),"",A32+1)	=IF(A33="","",COUNTIF(F:F,A33))	= IF(A33="","",B33/A$7)		
	= IF(OR(A33="",A33=A$12),"",A33+1)	=IF(A34="","",COUNTIF(F:F,A34))	= IF(A34="","",B34/A$7)		
	= IF(OR(A34="",A34=A$12),"",A34+1)	=IF(A35="","",COUNTIF(F:F,A35))	= IF(A35="","",B35/A$7)		
	= IF(OR(A35="",A35=A$12),"",A35+1)	=IF(A36="","",COUNTIF(F:F,A36))	= IF(A36="","",B36/A$7)		
	= IF(OR(A36="",A36=A$12),"",A36+1)	=IF(A37="","",COUNTIF(F:F,A37))	= IF(A37="","",B37/A$7)		
	= IF(OR(A37="",A37=A$12),"",A37+1)	=IF(A38="","",COUNTIF(F:F,A38))	= IF(A38="","",B38/A$7)		
	= IF(OR(A38="",A38=A$12),"",A38+1)	=IF(A39="","",COUNTIF(F:F,A39))	= IF(A39="","",B39/A$7)		

The remaining columns (F through J) contain dense spreadsheet formulas computing macrostate values, trial numbers, and coin flips using nested IF, MAX, FREQUENCY, COLUMN, and RAND functions that are too small to be read reliably.