

1											
2											
3	Outcome	2	3	4	5	6	7	8			
4	Probability	0.0400	0.1100	0.2000	0.3000	0.2000	0.1100	0.0400			
5											
6											
7											
8							Die #1				
9	roll	Die #1 prob	Die #2 prob		Die #2	1	2	3	4		
10	1	0.4	0.1			0.0400	0.0300	0.0200	0.0100		
11	2	0.3	0.2			0.0800	0.0600	0.0400	0.0200		
12	3	0.2	0.3			0.1200	0.0900	0.0600	0.0300		
13	4	0.1	0.4			0.1600	0.1200	0.0800	0.0400		
14	total	1	1								
15											
16											
17		the chart below is just to remind me of the boxes, i.e. sums									
18			Die #1								
19			1	2	3	4	5				
20			2	3	4	5	6				
21		Die #1	3	4	5	6	7				
22			4	5	6	7	8				
23			5	6	7	8					
24											
25											
26											
27											
28											

The computer will sometimes try to help when you enter the probability of the die as a fraction. It reads the fraction as a date. To get the fraction, try putting an equal sign before the number.

	A	B	C	D	E	F	G	H	I	J	K
1											
2											
3	Outcome	2	3	4	5	6	7	8			
4	Probability	=G10	=G11+H10	=G12+H11+I10	=G13+H12+I11+J10	=H13+I12+J11	=I13+J12	=J13			
5											
6											
7											
8							Die #1				
9	roll	Die #1 prob	Die #2 prob		Die #2	1	2	3	4		
10	1	0.4	0.1			1	2	3	4		
11	2	0.3	0.2			2	3	4	5		
12	3	0.2	0.3			3	4	5	6		
13	4	0.1	0.4			4	5	6	7		
14	total	=SUM(B10:B13)	=SUM(C10:C13)								
15											
16											
17											
18				Die #1							
19				1	2	3	4				
20			1	2	3	4	5				
21	Die #2		2	3	4	5	6				
22			3	4	5	6	7				
23			4	5	6	7	8				
24											
25											
26											
27											

the chart below is just to remind me of the boxes, i.e. sums

	A	B	C	D	E	F	G	H	I	J	K	L			
1						Die #1		Die #2							
2	Die #1	probability	Die #2	Probability		roll	prob	roll	prob	sum	prob				
3	1	0.1000	1	0.1000		1	0.1000	1	0.1000	2	0.0100				
4	2	0.2000	2	0.1000		2	0.2000	1	0.1000	3	0.0200				
5	3	0.3000	3	0.2000		1	0.1000	2	0.1000	3	0.0100				
6	4	0.4000	4	0.7000		2	0.2000	2	0.1000	4	0.0200				
7						1	0.1000	3	0.2000	4	0.0200				
8	Probability Distribution					3	0.3000	1	0.1000	4	0.0300				
9	Outcome	Probability				3	0.3000	2	0.1000	5	0.0300				
10	2	0.0100				4	0.4000	1	0.1000	5	0.0400				
11	3	0.0300				1	0.1000	4	0.7000	5	0.0700				
12	4	0.0700				2	0.2000	3	0.2000	5	0.0400				
13	5	0.1800				4	0.4000	2	0.1000	6	0.0400				
14	6	0.2400				2	0.2000	4	0.7000	6	0.1400				
15	7	0.2900				3	0.3000	3	0.2000	6	0.0600				
16	8	0.2800				4	0.4000	3	0.2000	7	0.0800				
17						3	0.3000	4	0.7000	7	0.2100				
18						4	0.4000	4	0.7000	8	0.2800				
19															
20															
21	Notice that the table has the sum listed in an order from small to large.														
22	This was accomplished by typing in all of the roll combinations, computing the sums and then sorting the list. Then I typed in the formulas that looked up the probability and computed the sum of that probability														
23															
24															
25	To sort the rolls given below, highlight the region in purple. Select Data and tell the program to sort of column E. You can choose ascending or descending.														
26															
27															
28															
29															
30	roll	prob	roll	prob	sum										
31	1		1		2										
32	1		2		3										
33	1		3		4										
34	1		4		5										
35	2		1		3										
36	2		2		4										
37	2		3		5										
38	2		4		6										
39	3		1		4										
40	3		2		5										
41	3		3		6										
42	3		4		7										
43	4		1		5										
44	4		2		6										
45	4		3		7										
46	4		4		8										

	A	B	C	D	E	F	G	H	I	J	K
1							Die #1		Die #2		
2	Die #1	probability	Die #2	Probability		roll	prob	roll	prob	sum	prob
3	1	0.1000	1	0.1000		1	=VLOOKUP(F3,\$A\$3:\$B\$6,2)	1	=VLOOKUP(H3,\$C\$3:\$D\$6,2)	2	=G3*I3
4	2	0.2000	2	0.1000		2	=VLOOKUP(F4,\$A\$3:\$B\$6,2)	1	=VLOOKUP(H4,\$C\$3:\$D\$6,2)	3	=G4*I4
5	3	0.3000	3	0.2000		1	=VLOOKUP(F5,\$A\$3:\$B\$6,2)	2	=VLOOKUP(H5,\$C\$3:\$D\$6,2)	3	=G5*I5
6	4	0.4000	4	0.7000		2	=VLOOKUP(F6,\$A\$3:\$B\$6,2)	2	=VLOOKUP(H6,\$C\$3:\$D\$6,2)	4	=G6*I6
7						1	=VLOOKUP(F7,\$A\$3:\$B\$6,2)	3	=VLOOKUP(H7,\$C\$3:\$D\$6,2)	4	=G7*I7
8		Probability Distribution				3	=VLOOKUP(F8,\$A\$3:\$B\$6,2)	1	=VLOOKUP(H8,\$C\$3:\$D\$6,2)	4	=G8*I8
9	Outcome	Probability				3	=VLOOKUP(F9,\$A\$3:\$B\$6,2)	2	=VLOOKUP(H9,\$C\$3:\$D\$6,2)	5	=G9*I9
10	2	=K3				4	=VLOOKUP(F10,\$A\$3:\$B\$6,2)	1	=VLOOKUP(H10,\$C\$3:\$D\$6,2)	5	=G10*I10
11	3	=SUM(K4:K5)				1	=VLOOKUP(F11,\$A\$3:\$B\$6,2)	4	=VLOOKUP(H11,\$C\$3:\$D\$6,2)	5	=G11*I11
12	4	=SUM(K6:K8)				2	=VLOOKUP(F12,\$A\$3:\$B\$6,2)	3	=VLOOKUP(H12,\$C\$3:\$D\$6,2)	5	=G12*I12
13	5	=SUM(K9:K12)				4	=VLOOKUP(F13,\$A\$3:\$B\$6,2)	2	=VLOOKUP(H13,\$C\$3:\$D\$6,2)	6	=G13*I13
14	6	=SUM(K13:K15)				2	=VLOOKUP(F14,\$A\$3:\$B\$6,2)	4	=VLOOKUP(H14,\$C\$3:\$D\$6,2)	6	=G14*I14
15	7	=SUM(K16:K17)				3	=VLOOKUP(F15,\$A\$3:\$B\$6,2)	3	=VLOOKUP(H15,\$C\$3:\$D\$6,2)	6	=G15*I15
16	8	=K18				4	=VLOOKUP(F16,\$A\$3:\$B\$6,2)	3	=VLOOKUP(H16,\$C\$3:\$D\$6,2)	7	=G16*I16
17						3	=VLOOKUP(F17,\$A\$3:\$B\$6,2)	4	=VLOOKUP(H17,\$C\$3:\$D\$6,2)	7	=G17*I17
18						4	=VLOOKUP(F18,\$A\$3:\$B\$6,2)	4	=VLOOKUP(H18,\$C\$3:\$D\$6,2)	8	=G18*I18
19											