

	A	B	C	D	E
1		3	balls drawn.		
2					
3	Red	Green		Total	
4	8	6		14	
5					
6					
7	number of red	0	1	2	3
8	prob	0.05495	0.32967	0.46154	0.15385
9					
10					
11		Expected number			total prob
12		1.71			1

	A	B	C	D
1		3	balls drawn.	
2				
3	Red	Green		Total
4	8	6		=A4+B4
5				
6				
7	number of red	0	1	2
8	prob	=COMBIN(\$A\$4,B7)*COMBIN(\$B\$4,\$B\$1-B7)/COMBIN(\$D\$4,\$B\$1)	=COMBIN(\$A\$4,C7)*COMBIN(\$B\$4,\$B\$1-C7)/COMBIN(\$D\$4,\$B\$1)	=COMBIN(\$A\$4,D7)*COMBIN(\$B\$4,\$B\$1-D7)/COMBIN(\$D\$4,\$B\$1)
9				
10				
11		Expected number		
12		=SUMPRODUCT(B7:E7,B8:E8)		

	E
1	
2	
3	
4	
5	
6	
7	3
8	=COMBIN(\$A\$4,E7)*COMBIN(\$B\$4,\$B\$1-E7)/COMBIN(\$D\$4,\$B\$1)
9	
10	
11	total prob
12	=SUM(B8:E8)

	A	B	C	D	E	F
1						
2	draws	2	cost of game		3	
3						
4	red	green		total		
5	10	15		25		
6						
7	winnings	0	2	5		
8	net winnings	-3	-1	2		
9	number of red	0	1	2		total prob
10	prob	0.35000	0.50000	0.15000		1
11						
12		Expected profit				
13		-1.25				
14						

	A	B	C	D	E	F
1						
2	draws		2		cost of game	3
3						
4	red	green			total	
5	10	15			=SUM(A5:B5)	
6						
7	winnings		0	2		5
8	net winnings	=B7-\$E\$2	=C7-\$E\$2	=D7-\$E\$2		
9	number of red		0	1	2	total prob
10	prob	=COMBIN(\$A\$5,B9)*COMBIN(\$B\$5,\$B\$2-\$B9)/COMBIN(\$D\$5,\$B\$2)	=COMBIN(\$A\$5,C9)*COMBIN(\$B\$5,\$B\$2-\$C9)/COMBIN(\$D\$5,\$B\$2)	=COMBIN(\$A\$5,D9)*COMBIN(\$B\$5,\$B\$2-\$D9)/COMBIN(\$D\$5,\$B\$2)		=SUM(B10:E10)
11						
12		Expected profit				
13		=SUMPRODUCT(B8:D8,B10:D10)				
14						
15						