

	A	B	C	D
1	An actual hand?	description	formula	value
2		all hands	=COMBIN(52,5)	2598960
3				
4	yes	4 of a kind	=COMBIN(13,1)*COMBIN(48,1)	624
5	yes	full house	=PERMUT(13,2)*COMBIN(4,3)*COMBIN(4,2)	3744
6	yes	3 of a kind	=COMBIN(13,1)*COMBIN(12,2)*COMBIN(4,3)*COMBIN(4,1)^2	54912
7	yes	2 pair	=COMBIN(13,2)*COMBIN(4,2)^2*COMBIN(44,1)	123552
8	yes	1 pair	=COMBIN(13,1)*COMBIN(12,3)*COMBIN(4,2)*COMBIN(4,1)^3	1098240
9		5 different ranks	=COMBIN(13,5)*COMBIN(4,1)^5	1317888
10		sum	=SUM(C4:C9)	2598960
11				
12		all flushes	=COMBIN(4,1)*COMBIN(13,5)	5148
13		all straights	=COMBIN(10,1)*COMBIN(4,1)^5	10240
14		all straight flushes	=COMBIN(4,1)*COMBIN(10,1)	40
15	yes	royal flushes	=COMBIN(4, 1)	4
16	yes	straight flushes (non royal)	=C14-C15	36
17	yes	normal flushes	=C12-C14	5108
18	yes	normal straights	=C13-C14	10200
19				
20	yes	"nothing"	=C9-SUM(C15:C18)	1302540
21				
22		sum of actual hands	=SUM(C4:C8)+SUM(C15:C18)+C20	2598960