

	3	4	5	6	7	8	9	10
3	(0, 1, 2)	(0, 0, 1, 2)	(0, 0, 1, 1, 1)	(0, 0, 0, 1, 1, 1)	(0, 0, 0, 0, 1, 1, 1)	(0, 0, 0, 0, 0, 1, 1, 1)	(0, 0, 0, 0, 0, 0, 1, 1, 1)	(0, 0, 0, 0, 0, 0, 0, 1, 1, 1)
4	(0, 1, 3), (0, 2, 2)	(0, 1, 1, 2)	(0, 0, 1, 1, 2)	(0, 0, 1, 1, 1, 1)	(0, 0, 0, 1, 1, 1, 1), (0, 0, 1, 0, 1, 1, 1)	(0, 0, 0, 0, 1, 1, 1, 1), (0, 0, 0, 1, 0, 1, 1, 1)	(0, 0, 0, 0, 1, 0, 1, 1, 1)	(0, 0, 0, 0, 0, 1, 0, 1, 1, 1)
5	(0, 2, 3)	(0, 1, 1, 3)	(0, 0, 2, 1, 2)	(0, 0, 1, 1, 1, 2)	(0, 0, 1, 1, 1, 1, 1)	(0, 0, 1, 0, 1, 1, 1, 1)	(0, 0, 1, 0, 0, 1, 1, 1, 1)	(0, 0, 0, 1, 0, 0, 1, 1, 1, 1)
6	(0, 2, 4), (0, 3, 3)	(0, 1, 2, 3)	(0, 0, 2, 1, 3)	(0, 1, 1, 1, 1, 2)	(0, 0, 1, 1, 1, 1, 2)	(0, 0, 1, 1, 1, 1, 1, 1)	(0, 0, 1, 0, 1, 1, 1, 1, 1)	(0, 0, 1, 0, 0, 1, 1, 1, 1, 1)
7	(0, 3, 4)	(0, 1, 2, 4)	(0, 0, 3, 1, 3)	(0, 1, 1, 1, 2, 2)	(0, 1, 1, 1, 1, 1, 2)	(0, 0, 1, 1, 1, 1, 1, 2)	(0, 0, 1, 1, 1, 1, 1, 1, 1)	(0, 0, 1, 0, 1, 1, 1, 1, 1, 1)
8	(0, 3, 5), (0, 4, 4)	(0, 2, 2, 4)	(0, 0, 3, 1, 4)	(0, 1, 1, 2, 2, 2)	(0, 1, 1, 1, 1, 2, 2)	(0, 1, 1, 1, 1, 1, 1, 2)	(0, 0, 1, 1, 1, 1, 1, 1, 2)	(0, 0, 1, 1, 1, 1, 1, 1, 1, 1)
9	(0, 4, 5)	(0, 2, 2, 5)	(0, 0, 4, 1, 4)	(0, 1, 2, 1, 2, 3)	(0, 1, 2, 1, 1, 2, 2)	(0, 1, 1, 1, 1, 1, 2, 2)	(0, 1, 1, 1, 1, 1, 1, 1, 2)	(0, 1, 1, 1, 1, 1, 1, 1, 1, 1)
10	(0, 4, 6), (0, 5, 5)	(0, 2, 3, 5)	(0, 0, 4, 1, 5)	(0, 1, 2, 2, 2, 3)	(0, 1, 2, 1, 2, 2, 2)	(0, 1, 2, 1, 1, 1, 2, 2)	(0, 1, 1, 1, 1, 1, 1, 2, 2)	(0, 1, 1, 1, 1, 1, 1, 1, 1, 2)
11	(0, 5, 6)	(0, 2, 3, 6)	(0, 0, 5, 1, 5)	(0, 2, 2, 2, 2, 3)	(0, 1, 2, 1, 2, 2, 3)	(0, 1, 2, 2, 1, 1, 2, 2)	(0, 1, 2, 2, 1, 1, 1, 1, 2)	Not found

TABLE 1. The entries of this table contain all the optimal ways of allocating a number of soldiers, represented by the rows, amongst a number of castles, represented by the columns. Here, a tuple represents an entry that a player would submit.

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
(3, 6, 9, 10)										
(1, 3, 5, 9, 10)										
(1, 3, 6, 8, 10)										
(2, 3, 5, 8, 10)										
(2, 3, 6, 7, 10)										
(2, 3, 6, 8, 9)										
(2, 4, 5, 7, 10)										
(2, 4, 5, 8, 9)										
(2, 4, 6, 7, 9)										
(2, 5, 6, 7, 8)										
(3, 4, 5, 7, 9)										
(3, 4, 6, 7, 8)										
(1, 2, 3, 5, 7, 10)										
(1, 2, 3, 5, 8, 9)										
(1, 2, 3, 6, 7, 9)										
(1, 2, 4, 5, 7, 9)										
(1, 2, 4, 6, 7, 8)										
(1, 3, 4, 5, 6, 9)										
(1, 3, 4, 5, 7, 8)										
(2, 3, 4, 5, 6, 8)										
Number of occurrences	9	13	14	10	12	11	11	10	10	7

FIGURE 1. A visualization of the combinations of castles needed to win a game of Colonel Blotto that are of interest. Here, a tuple represents a combination of castles. Moreover, a black square represents an allocation of importance as determined by the combination of castles being considered. The number of times a castle occurs over those 28 combinations is also displayed. I would like to understand the behavior behind the combinations of castles needed to win a game.