Hw: ANALYSIS OF SEARCH

A magic square is a 3x3 matrix of positive integers so

that the sum of each diagonal, raw, and column is equal, e.g.

The numbers need not be consecutive

The numbers need not be consecutive

	10	3	8	->21
	5	7	9	->21
	6	11	4	→ 21
6	1	ı	J	7
21	21	21	21	21

	2	7	6	->15	
	9	5	١	⇒15	
	4	3	8	→ 15	
K	J	T	V	7	
15	15	15	15	15	

Suppose we wanted to create a state machine to find a magic square whose rows, columns, and diagonals all sum to integer K(e.g. K=21) for the above left square, while K=15tor the above right).

Create a state machine $M = (Q, \Sigma, \Delta, q_0, F)$ with branching factor b = 9, maximum depth m = 3k, and solution depth d=3k.

Which strategy should you use with this machine: BFS or DF5? Why?