## Analysis - Boggle

## Emmanuel Shiferaw

April 5, 2013

## 1 Stats

The results from running BoggleStats many times with the permutations of Players, Lexicons, and board sizes can be seen in the table below, with the trie offering the lowest runtime for the BoardFirst autoplayer, while the Simple and BinarySearch lexicons offer (quite)similar runtimes for the LexiconFirst autoplayer (with Trie being the slowest lexicon there).

NUM_TRIALS	Player	Lexicon	Time(4x4)	Time(5x5)
1000	LexiconFirst	SimpleLexicon	92.655	123.02
10000	LexiconFirst	SimpleLexicon	911.578	1233.864
1000	LexiconFirst	TrieLexicon	134.373	198.017
10000	LexiconFirst	TrieLexicon	1400.866	1753.36
1000	LexiconFirst	BinarySearchLexicon	94.727	140.398
10000	LexiconFirst	BinarySearchLexicon	824.233	1244.411
1000	BoardFirst	SimpleLexicon	1.97	4.944
10000	BoardFirst	SimpleLexicon	14.502	47.792
1000	BoardFirst	TrieLexicon	0.997	2.567
10000	BoardFirst	TrieLexicon	7.922	18.455
1000	BoardFirst	BinarySearchLexicon	1.253	2.46
10000	BoardFirst	BinarySearchLexicon	10.229	24.553