**P102**

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**Lab Project 1**

**Artificial Intelligence**

**1. What works?**

Exercises from 1 to 6 and exercise 8 work correctly passing all tests.

**2. What does not work?**

Exercise 7 does not pass the last test (tricky maze) and expands more than 7000 nodes so the final grade for that exercise is ¾, we couldn’t achieve to lower it more without using distanceMaze function.

**3. Which problems did you have doing the exercise?**

At the very first moment, we had a bit of trouble using python since we have little experience with it. Also, we lost a bit of time with the initial algorithms of the first exercises because we were not applying them correctly to the problem. The only problem that we couldn’t overcome was the fact of avoiding the use of distanceMaze function on exercise 7 and lowering the number of expanded nodes down to 7,000, we couldn’t reach less than 9,000 expanded nodes.

**4. Specific questions from Berkeley Search Assignment**

**4.1 DFS**

**Is the exploration order what you would have expected?**

**Does Pacman actually go to all the explored squares on his way to the goal?**

**4.2 BFS**

**Does BFS find a least cost solution?**

**4.4 A\* search**

**What happens on openMaze for the various search strategies?**

**4.7 Eating All Dots**

**Can you solve mediumSearch in a short time?**

**4.8 Suboptimal Search**

**Your ClosestDotSearchAgent won't always find the shortest possible path through the maze. Make sure you understand why and try to come up with a small example where repeatedly going to the closest dot does not result in finding the shortest path for eating all the dots.**

