Notes:

Notes for independent pacman study:

* agents that plans ahead, vs reflex agents
  + plan ahead agent don’t have to write complex conditions to execute an action, can write generic function.
  + reflex agent, code like if-then statement, don’t plan ahead. act based on current and past memory.

-Berkeley open course project: have the code for graphics, but search algorithm I have to write myself.

-my approach for the persuade evader research topic:

First make the single agent able to travel optimally. The research on multiple agents.

-completed A star search algorithm with one heuristic method.

-trying to find more efficient heuristic method.

-study how to incorporate multiple agents behavior.

Project performance results

**A star search to find the optimal path to goal state,**

more red the color, earlier the expantion, note:more dark the color, later the expansion happens

command:  -l bigMaze -z .5 -p SearchAgent -a fn=astar,heuristic=manhattanHeuristic

**result for pacman eating all dots at once:**

**with no heuristic**, == uniform cost search

Command Line : -l tinySearch -p AStarFoodSearchAgent

Path found with total cost of 27 in 7.2 seconds

Search nodes expanded: 5366

Pacman emerges victorious! Score: 573

**heuristic 1:1/18/2014,**

description: manhattan distance for each dot to its closest dot, and its closest dot, until all the dot is travelled.

**result:**

Command Line : -l tinySearch -p AStarFoodSearchAgent

Path found with total cost of 27 in 0.8 seconds

Search nodes expanded: 1250

Pacman emerges victorious! Score: 573

Conclusion: much less node expanded, result is much faster execusion.