

CS188–Spring 2019 — Homework 3

Shenao Zhang, SID 3034487184

Due: Monday 2/11/2019 at 11:59pm (submit via Gradescope).

Leave self assessment boxes blank for this due date.

Self assessment due: Monday 2/11/2018 at 11:59pm (submit via Gradescope) For the self assessment, **fill in the self assessment boxes in your original submission** (you can download a PDF copy of your submission from Gradescope). For each subpart where your original answer was correct, write correct. Otherwise, write and explain the correct answer.

Policy: Can be solved in groups (acknowledge collaborators) but must be written up individually.

Submission: Your submission should be a PDF that matches this template. Each page of the PDF should align with the corresponding page of the template (page 1 has name/collaborators, question 1 begins on page 2, etc.). **Do not reorder, split, combine, or add extra pages.** The intention is that you print out the template, write on the page in pen/pencil, and then scan or take pictures of the pages to make your submission. You may also fill out this template digitally (e.g. using a tablet.)

First name	Shenao
Last name	Zhang
SID	3034487184
Collaborators	None

Q1(a)	correct
Q1(b)	correct
Q1(c)	Misunderstand the question. Give Pacman an extra category of moves, called ghost-fixing moves.
Q2	Add V_6 . If the minimizer chooses the value of the right subtree, the value at V_6 is unnecessary

Q1.One Wish Pacman

(a) From bottom to up, from left to right: $(-1,4), (3,4), (0,2), (-3,4), (0,3), (0,4)$.

$\min(\text{ulist})$
 $\max(\min(\text{vlist}), \max(\text{ulist}))$

(b) (i) From bottom to up, from left to right: $(-1, 1.5), (3, 3.5), (0, 1), (-3, 1), (0, 1.5), (0, 1.5)$.

(ii) $\min(\text{ulist})$
 $\max(\min(\text{vlist}), \text{average}(\text{ulist}))$

- (c) We can determin whether the pacman uses its power by comparing the number of the two ghosts.

Q2.MedianMiniMax

$v_7, v_8, v_{12}, v_{14}, v_{15}, v_{16}$