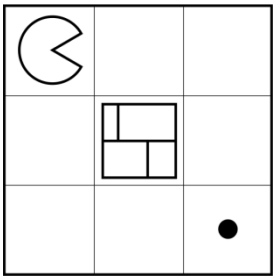
Adversarial search

Pacman plays a game against a moving wall. Pacman can move in the four cardinal directions and must move to an empty square. The wall can also move in the four cardinal directions and must move to an empty square and cannot move to a square containing a dot. No player can stand still. Pacman's score is equal to the number of dots he ate.

The first game starts as shown in the picture. Pacman plays first.



(a) Draw the search tree of the game, where each player plays one move.

(b) According to the depth limited tree above, what is the value of the game? Use Pacman's score as the evaluation function.

(c) Now consider a game tree with 10 moves for each player. What will the value of the game be in this case, according to minimax?