Artificial Intelligence: Assignment 3
Due date: October 4 (Thursday)

Problem 1 (4 points)
Read Chapters 4 and 5 of the textbook and answer the following questions:

(a) Explain the main differences between puzzle-solving search and game playing.

(b) Argue that game playing is inherently more difficult than solving one-player puzzles.

(c) Take the opposite position and argue that developing efficient techniques for puzzles is no easier than designing effective game strategies.

Problem 2 (6 points)
The 3×5 Pawn Game involves two players and six pawns (see the picture). Each player has three pawns, which move in the same way as the chess pawns. The owner of the white pawns makes the first move. A player wins in one of the following three cases:

- One of her pawns has reached the last row.
- She has captured all pawns of the opponent.
- All pawns of the opponent are blocked.

Implement a program for playing this game. It should prompt a user to specify the player ("white" or "black") and then act as this player. For example, if the user enters "white," the program makes the first move. For the full credit, it should win against the instructor and teaching assistant.