# Answers

# 4.2

Given this reward structure the reward for the optimal policy is 30. Using Manhattan distance we know that the path between the initial position of the player (1,8) and the position of the king fish (8,5) is 10 steps. The reward for these steps is therefore -20(10\*-2). Given the reward for the king fish is 50 out total reward for this optimal policy is 30.

*-2\*10 + 50 = 30*

\*This is providing that jelly fish aren’t blocking every possible path otherwise this reqrad will be lower.