

# ECE 289A - An Introduction to Reinforcement Learning

## HW#3

Ahmed H. Mahmoud

November, 2nd 2017

### Q.1

In this question, we regenerated plot in Figure 5.1 in the book. Figure 1 shows the regenerated plots.

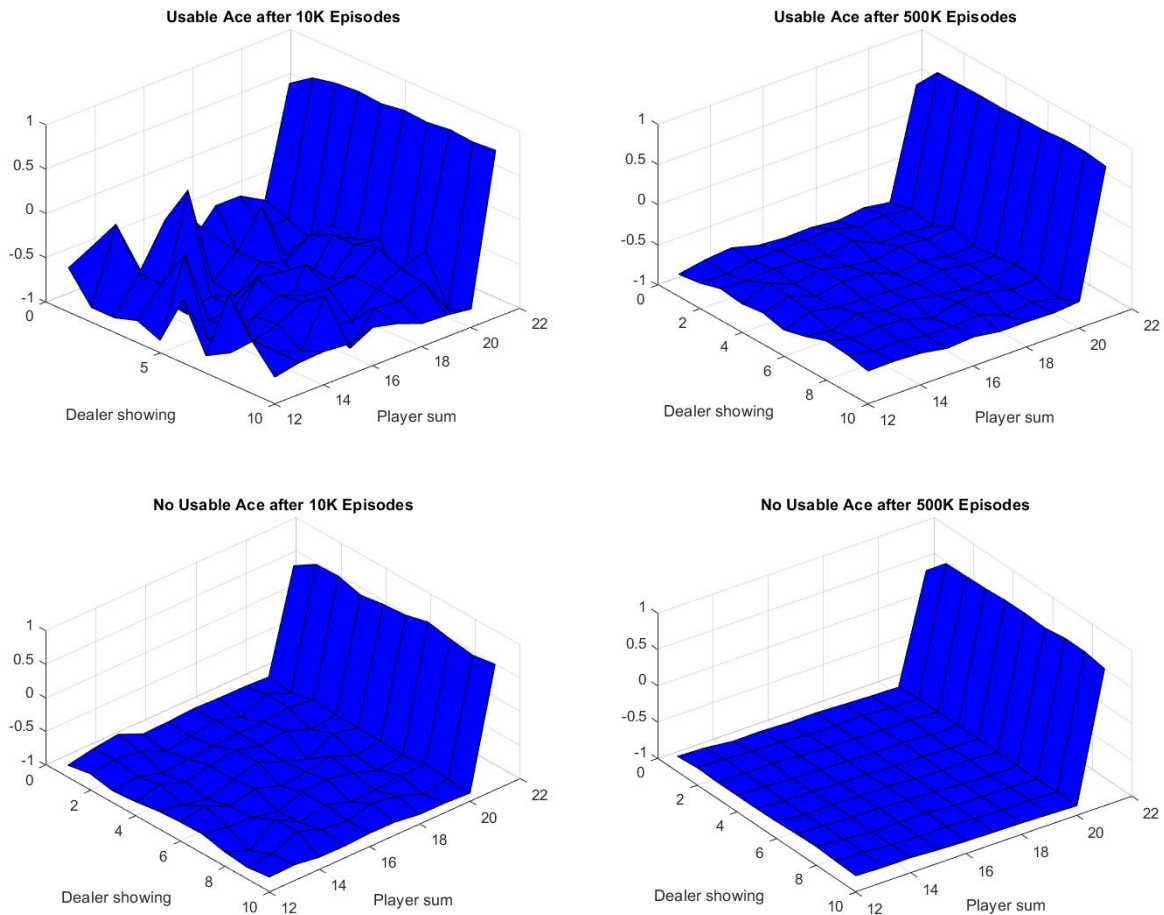


Figure 1: Approximate state-value functions for blackjack policy using Monte Carlo policy evaluation.

## Q.2

Here we regenerate Figure 5.4 from the book to compare the rate of convergence between weighted importance sampling and ordinary sampling. Figure 2 shows the regenerated plot.

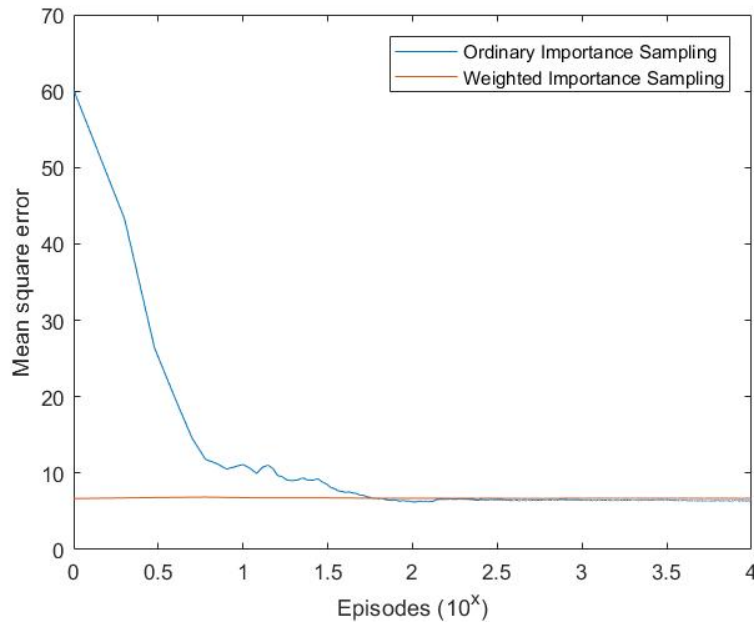


Figure 2: Weighted importance sampling produces lower error estimates of the value of a single blackjack state from off-policy episodes.