

State-action value function example

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1 State Action Value Function Example

In this Jupyter notebook, you can modify the mars rover example to see how the values of $Q(s,a)$ will change depending on the rewards and discount factor changing.

```
[ ]: import numpy as np
      from utils import *
```

```
[ ]: # Do not modify
      num_states = 6
      num_actions = 2
```

```
[ ]: terminal_left_reward = 100
      terminal_right_reward = 40
      each_step_reward = 0

      # Discount factor
      gamma = 0.5

      # Probability of going in the wrong direction
      misstep_prob = 0
```

```
[ ]: generate_visualization(terminal_left_reward, terminal_right_reward,
      ↪each_step_reward, gamma, misstep_prob)
```