

1. In Example 4.1, if  $\pi$  is the equiprobable random policy, what is  $q_\pi(11, \text{down})$ ? What is  $q_\pi(7, \text{down})$ ?

$$q_\pi(11, \text{down}) = 0$$

$$q_\pi(7, \text{down}) = -1 + v_\pi(11) = -15$$