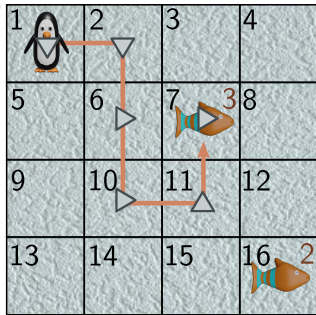
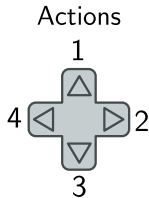


a)



$s_1 \ a_1 \ r_2 \ s_2 \ a_2 \ r_3 \ s_3 \ a_3 \ r_4 \ s_4 \ a_4 \ r_5 \ s_5 \ a_5 \ r_6 \ s_6 \ a_6 \ r_7$
 $\tau = [1, 3, 0, 2, 3, 0, 6, 2, 0, 10, 2, 0, 11, 1, 0, 7, 2, 3]$

b)



c)

$$\begin{bmatrix} 0 \\ 0.5 \\ 0 \\ 0 \\ 0.17 \\ 0 \\ 0.17 \\ 0 \\ 0 \\ 0 \\ 0.17 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{bmatrix}$$
 $Pr(s_{t+1}|s_t=6, a_t=1)$

$$\begin{bmatrix} 0 \\ 0.17 \\ 0 \\ 0 \\ 0.17 \\ 0 \\ 0.5 \\ 0 \\ 0 \\ 0 \\ 0.17 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{bmatrix}$$
 $Pr(s_{t+1}|s_t=6, a_t=2)$

$$\begin{bmatrix} 0 \\ 0.17 \\ 0 \\ 0 \\ 0.17 \\ 0 \\ 0.17 \\ 0 \\ 0 \\ 0.5 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{bmatrix}$$
 $Pr(s_{t+1}|s_t=6, a_t=3)$

$$\begin{bmatrix} 0 \\ 0.17 \\ 0 \\ 0 \\ 0.5 \\ 0 \\ 0.17 \\ 0 \\ 0 \\ 0.17 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{bmatrix}$$
 $Pr(s_{t+1}|s_t=6, a_t=4)$