

Rewards: $[1, 1, 1, 1, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0]$

$Q_0 = 0$

$$\alpha = 0.5 \quad Q_{n+1} = Q_n + \alpha [R_n - Q_n]$$

$$\rightarrow Q_{n+1} = Q_n + 0.5 [R_n - Q_n]$$

$$Q_1 = Q_0 + 0.5 [R_0 - Q_0]$$

$$Q_0 = 0.5 [R_0 - Q_0] = 0 + 0.5 [1 - 0] = 0.5$$

$$Q_1 = 0.5 [R_1 - Q_1] \quad Q_2 = 0.5 + 0.5 [1 - 0.5]$$

$$Q_2 = 0.75$$

برای حساب مقدارهای کنونی از جدولی بنویسیم

$$Q_4 = 0.9375$$

$$Q_5 = Q_4 + 0.5 [R_4 - Q_4]$$

$$= 0.9375 + 0.5 [0 - 0.9375]$$

$$Q_5 = 0.484375$$

$$Q_1 = Q_0 + \frac{1}{t} [R_0 - Q_0]$$

یعنی

$$Q_2 = Q_1 + \frac{1}{t} [R_1 - Q_1]$$

$$Q_2 = R_1$$

$$Q_1 = Q_0 + \frac{1}{t} [R_0 - Q_0]$$

$$Q_2$$