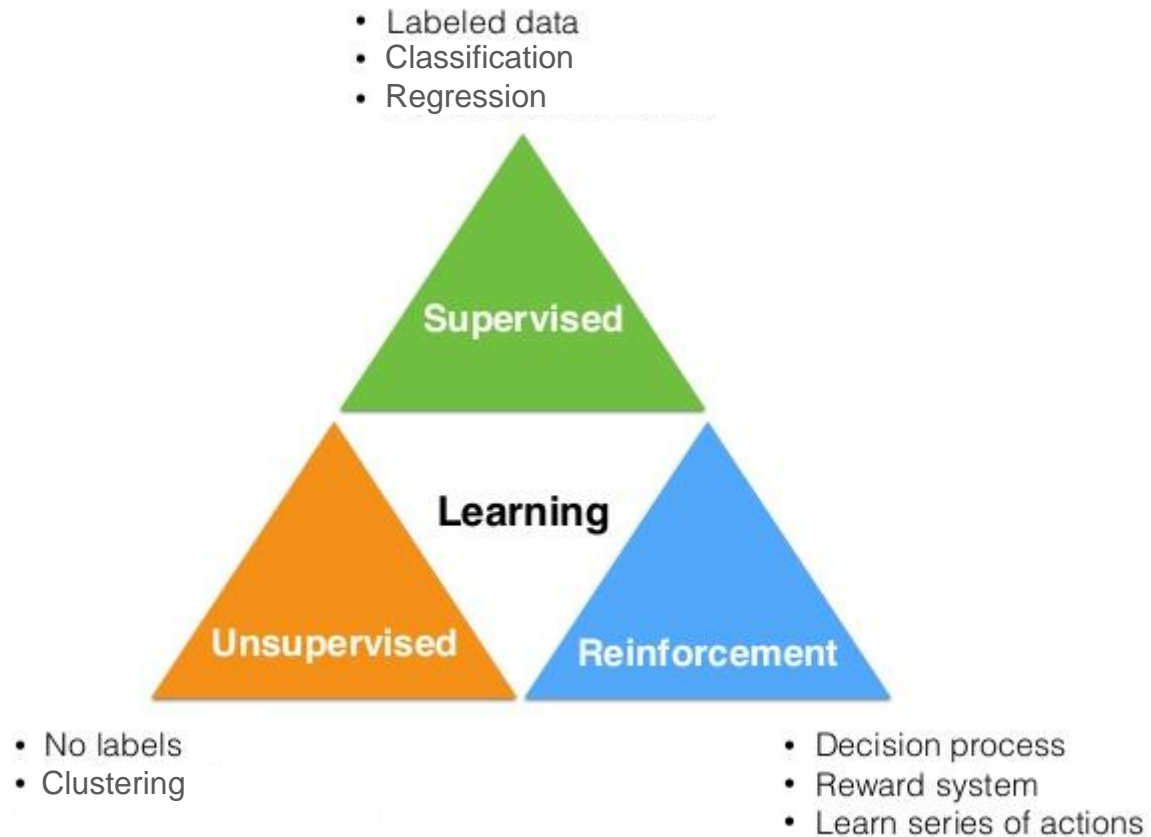
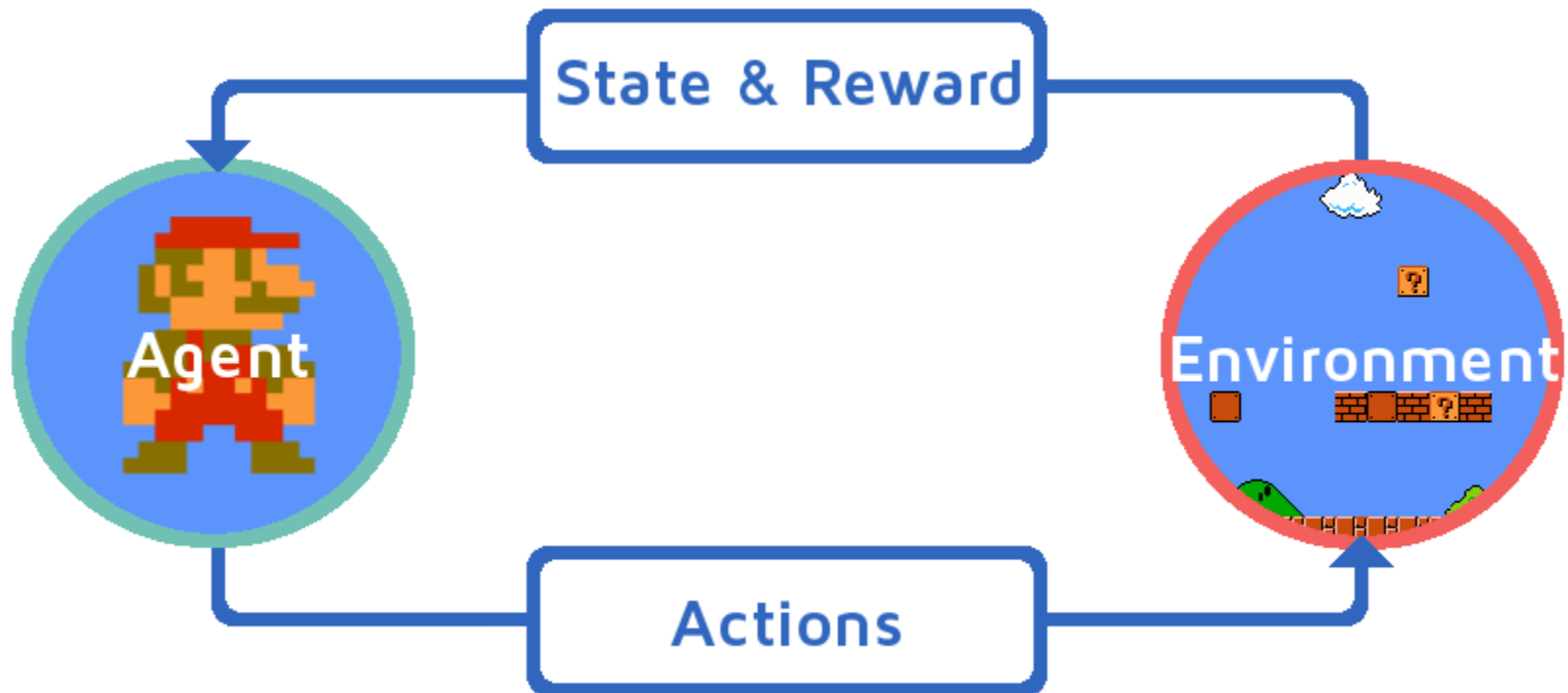


REINFORCEMENT LEARNING

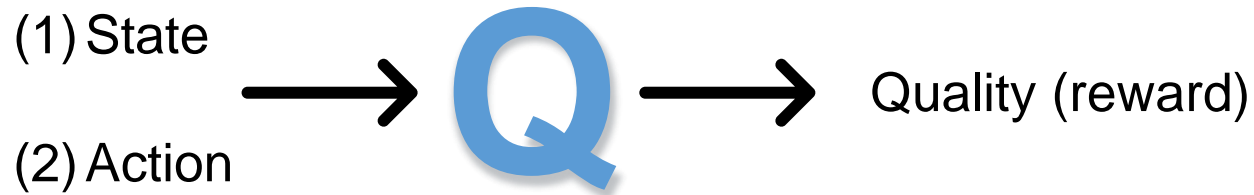
MACHINE LEARNING



REINFORCEMENT LEARNING



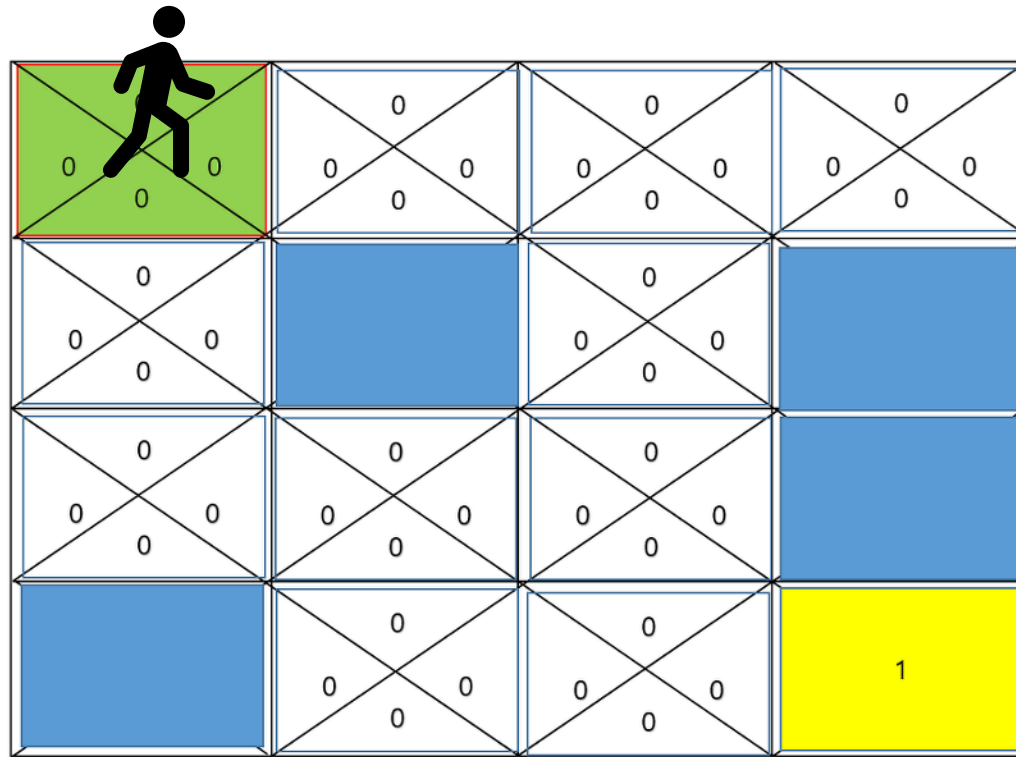
Q-LEARNING



$Q(\text{state}, \text{action})$

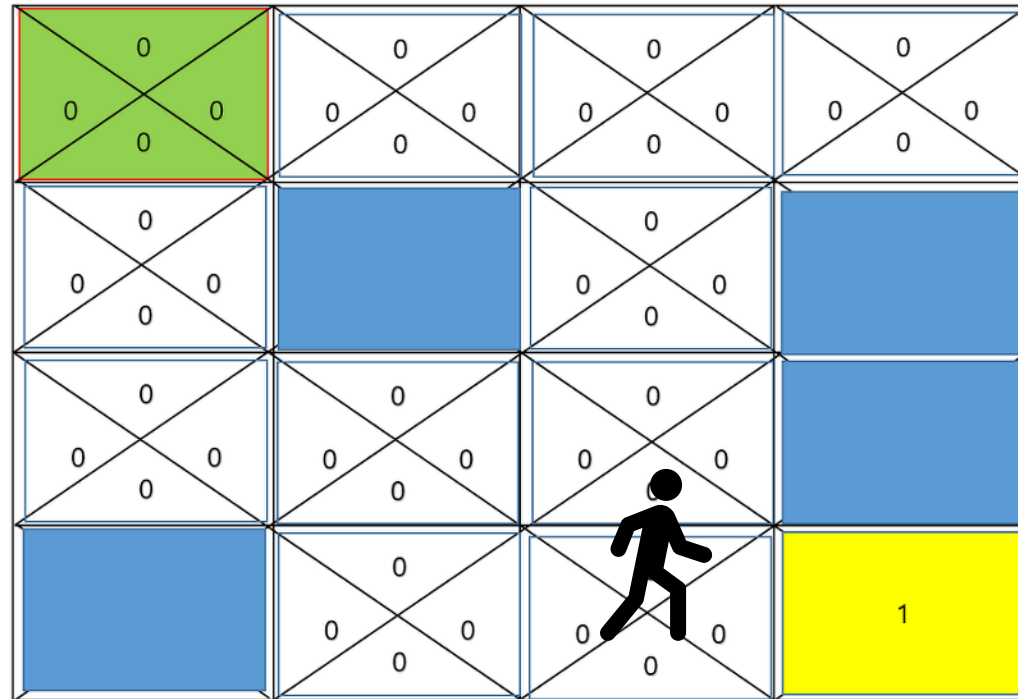
$$Q(s,a)=r+\max Q(s',a')$$

FROZEN LAKE



$$Q(s,a)=r+\max Q(s',a')$$

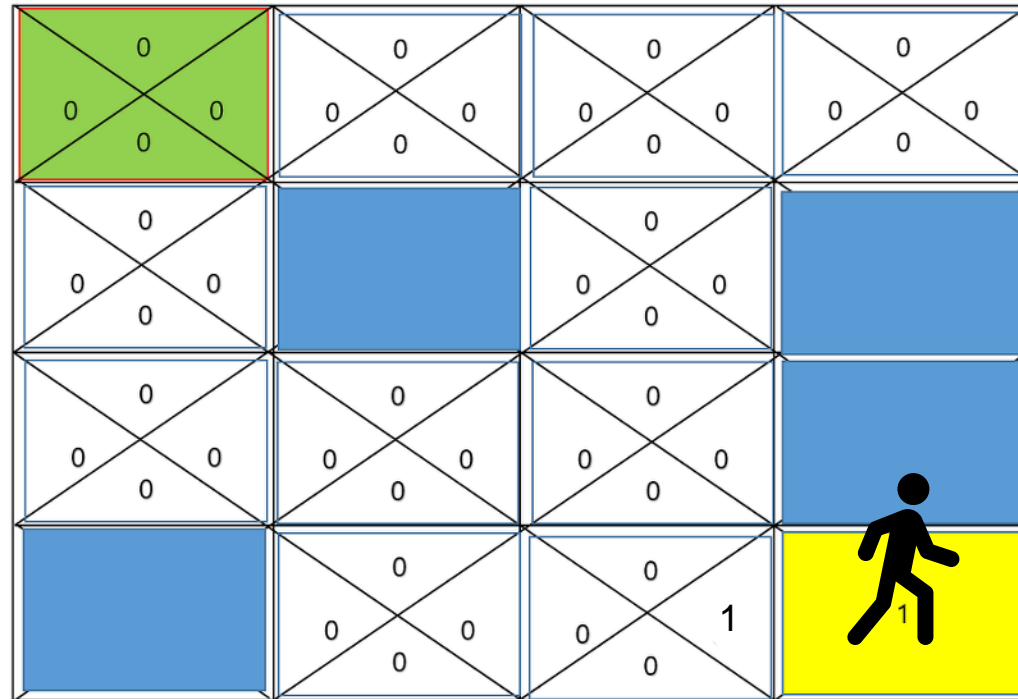
FROZEN LAKE



0	1	2	3
4	5	6	7
8	9	10	11
12	13	14	15

$$Q(14, \text{오른쪽}) = 1 + \max Q(15, a')$$

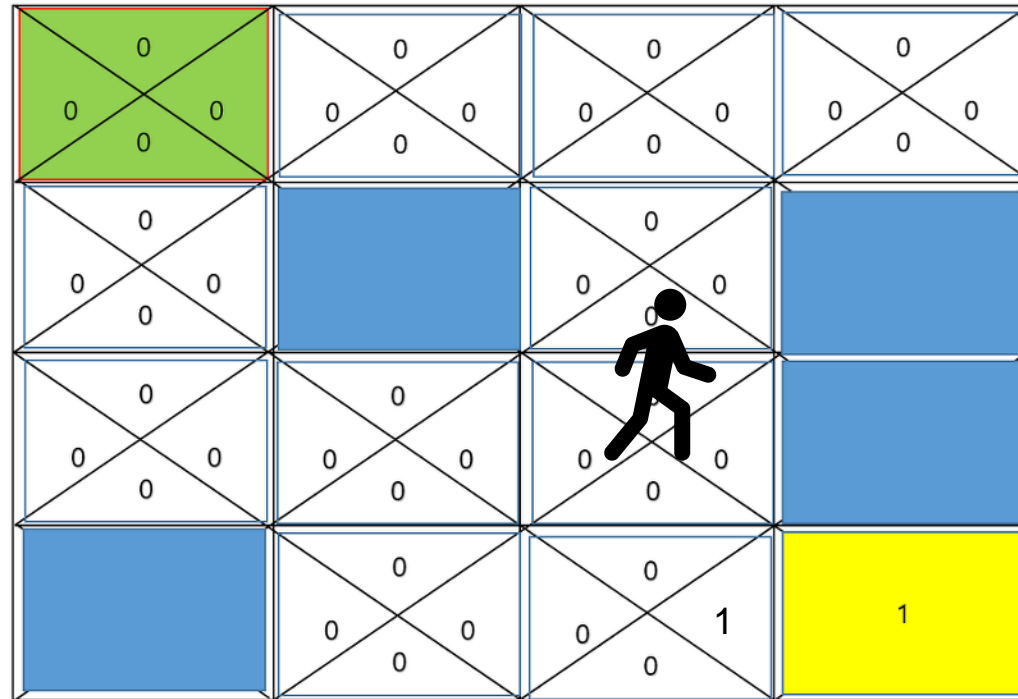
FROZEN LAKE



0	1	2	3
4	5	6	7
8	9	10	11
12	13	14	15

$$Q(14, \text{오른쪽}) = 1 + \max Q(15, a')$$

FROZEN LAKE

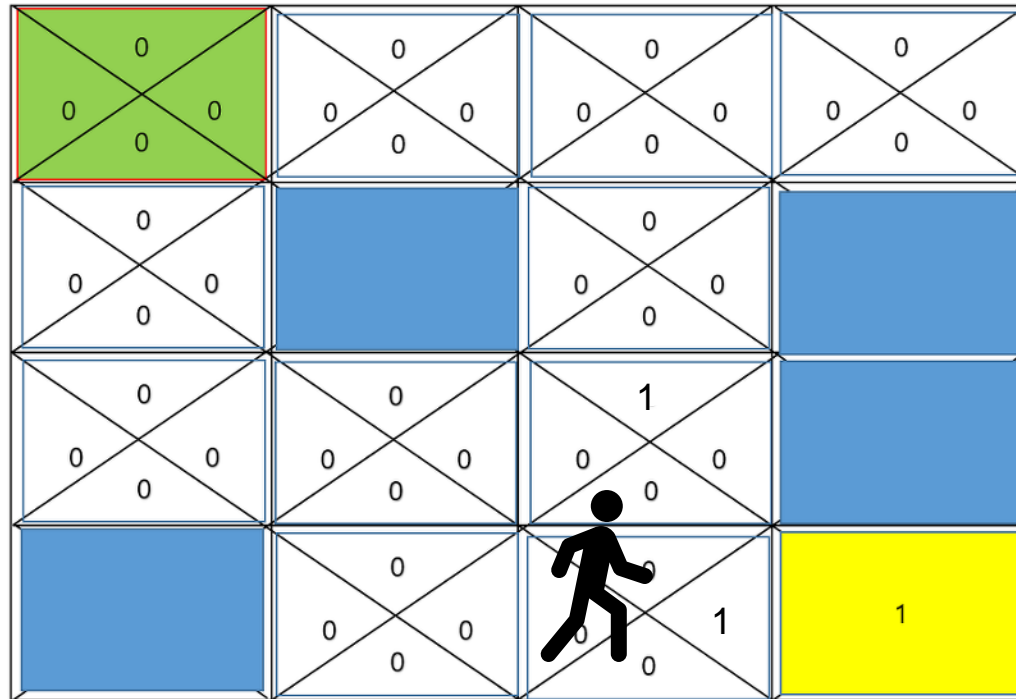


0	1	2	3
4	5	6	7
8	9	10	11
12	13	14	15

$$Q(10, \text{아래}) = 0 + \max Q(14, a')$$

FROZEN LAKE

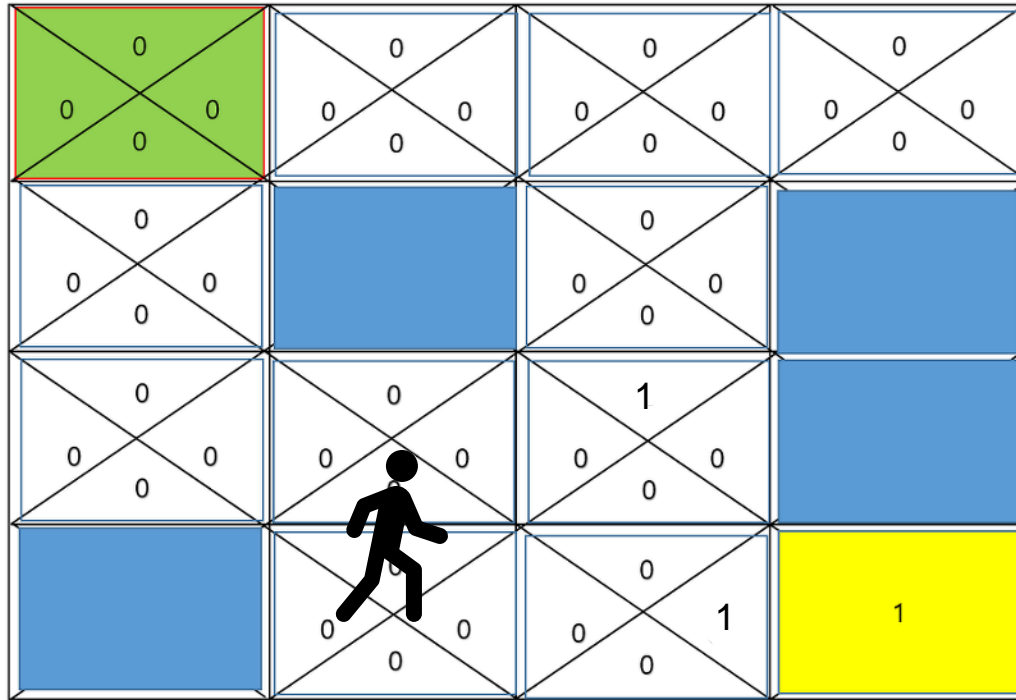
0	1	2	3
4	5	6	7
8	9	10	11
12	13	14	15



$$Q(10, \text{오른쪽}) = 0 + \max Q(14, a') = 1$$

FROZEN LAKE

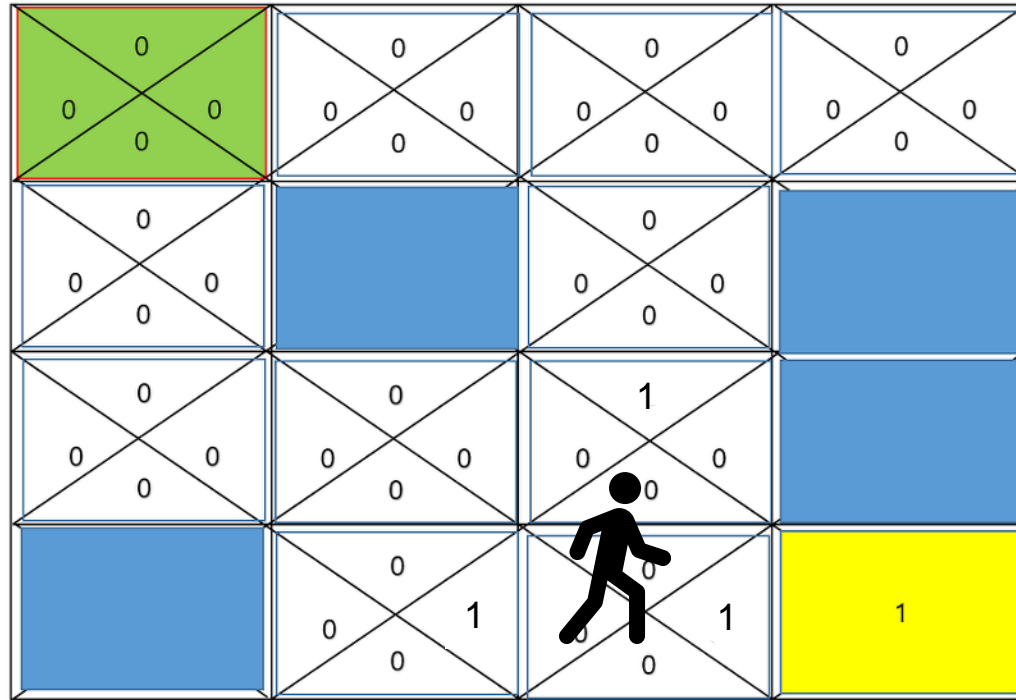
0	1	2	3
4	5	6	7
8	9	10	11
12	13	14	15



$$Q(13, \text{오른쪽}) = 0 + \max Q(14, a')$$

FROZEN LAKE

0	1	2	3
4	5	6	7
8	9	10	11
12	13	14	15



$$Q(13, \text{오른쪽}) = 0 + \max Q(14, a') = 1$$