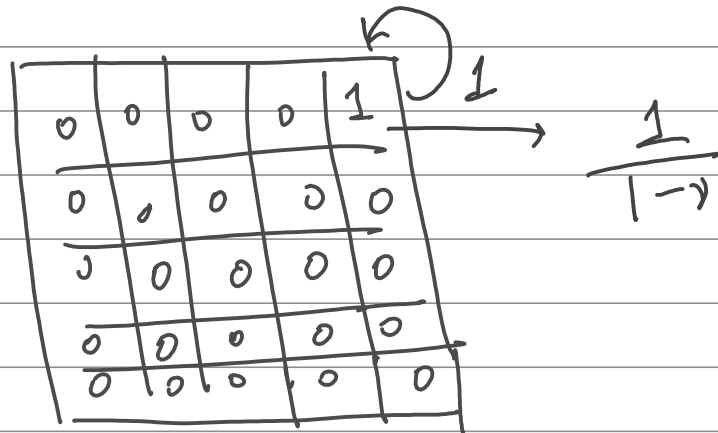Coding exercise: (5 marks) Deadline Apr 30th, 11:59 PM

Take a $n \times n$ grid   (Say $n = 5, 10, 20$)

Reward (1 in the top right
           0 else where)

π : optimal policy (this easy to compute
                         just by observation)

* Learn V_* using TD

* choose

$$\phi(s) = (1, x, y, |x-y|, xy, x^2, y^2, x^2+y^2, (x+y)^2)$$

$$\in \mathbb{R}^9$$

and find $V_*(s) \approx \phi^T(s) \theta_*$

using TD with function approximation.