PS 3

HOW ABOUT # OF UMBRELLAS AT
HOME AND BIOLOGIST LOCATION?

2×5 STATES

HOW ABOUT :

First diagram: states "0 UMB", "1 UMB WITH BIO", "2 UMB", "3 UMB", "4 UMB" and a sad face. Transitions labeled 0.1, 0.9, 0.1, 0.9, 0.1, with red X, and 0.9, 0.1 arrows.

Second diagram: states "0 UMB IN LAB", "1 IN LAB", "2 IN LAB", "3 IN LAB", "4 IN LAB" and a sad face, with 0.9 self-loop on "4 IN LAB".
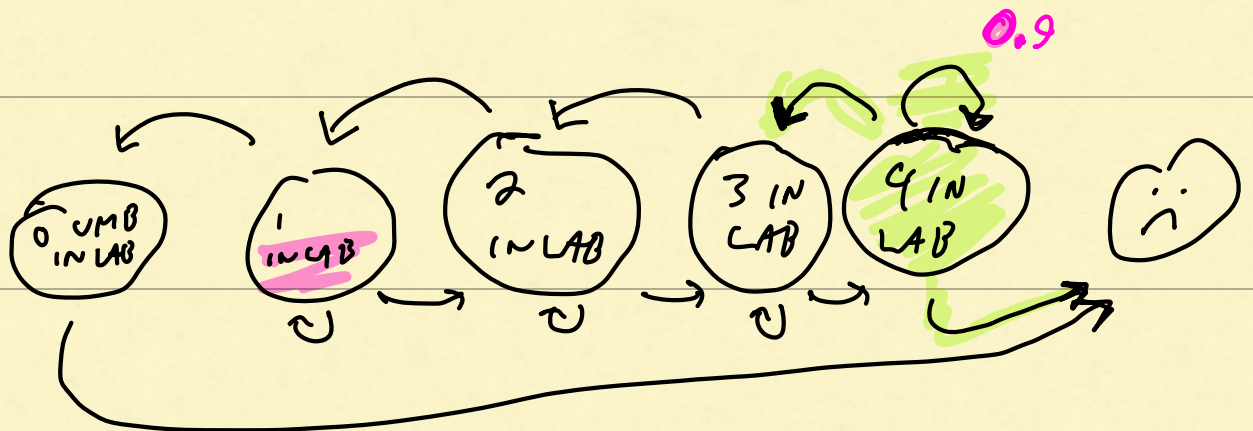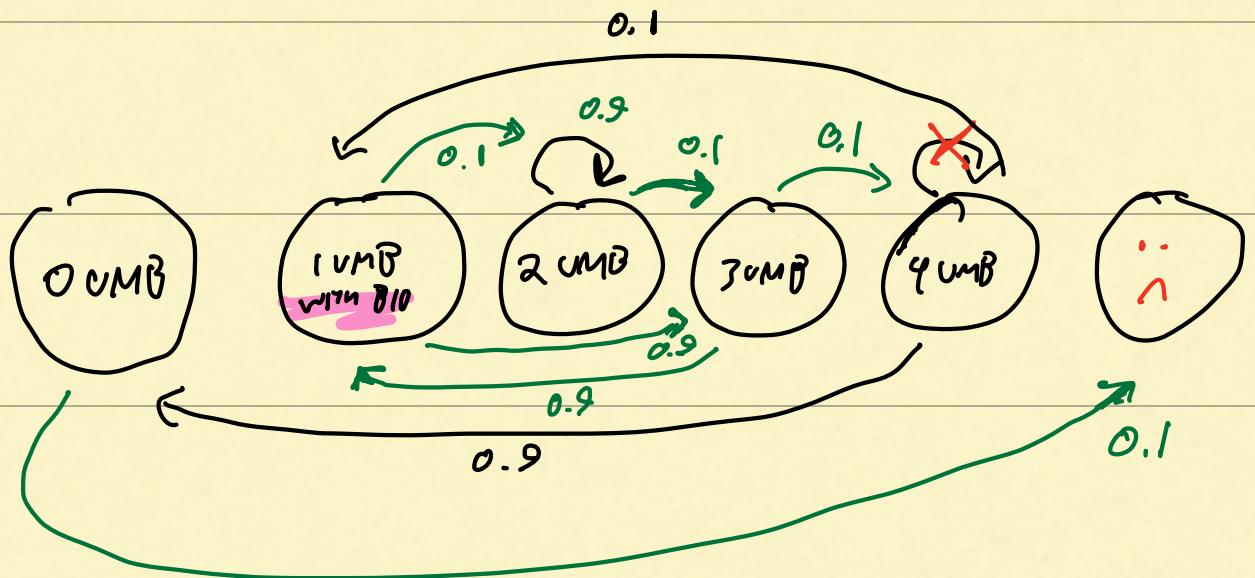
	0	1	2	3	4	WET
0	0	0	0	0	0.9	0
1	0	0	0	0.9	0.1	0
2	0	0.2 / 0.1	0.9	0.1	0	0
3	0	0.9	0.1	0	0	0
4	0.9	0.1 / 0.2	0	0	0	0
WET	0.1	0	0	0	0	1

	4	3	2	1	0	WET
4	0	( )				
3	0					
2	0					
1	0.1					
0	0.9					
WET	0					

$$\vec{P}_{N+1} \underset{=}{=} M \cdot \vec{P}_N$$

MEAN FIRST PASSAGE FROM j TO k

M_{-j} REMOVE j^{TH} ROW & COLUMN

$$\begin{bmatrix} -1 \\ -1 \\ -1 \\ -1 \\ -1 \end{bmatrix} = \left(M_{-j}^{-1} - I_{5\times5} \right) \cdot \vec{T}_j$$

48 DAYS ?

$\checkmark\checkmark$ 96 TRANSITIONS ?