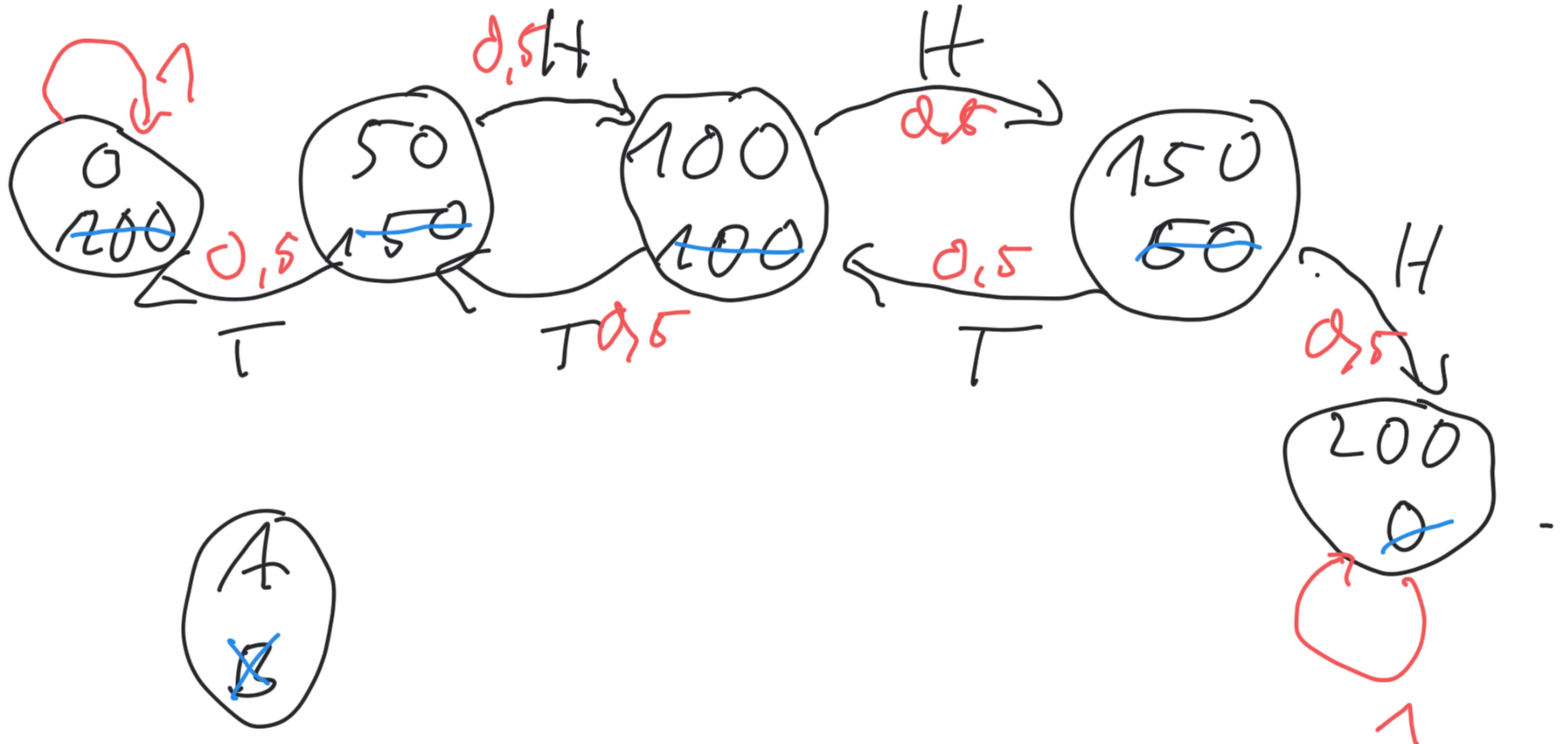
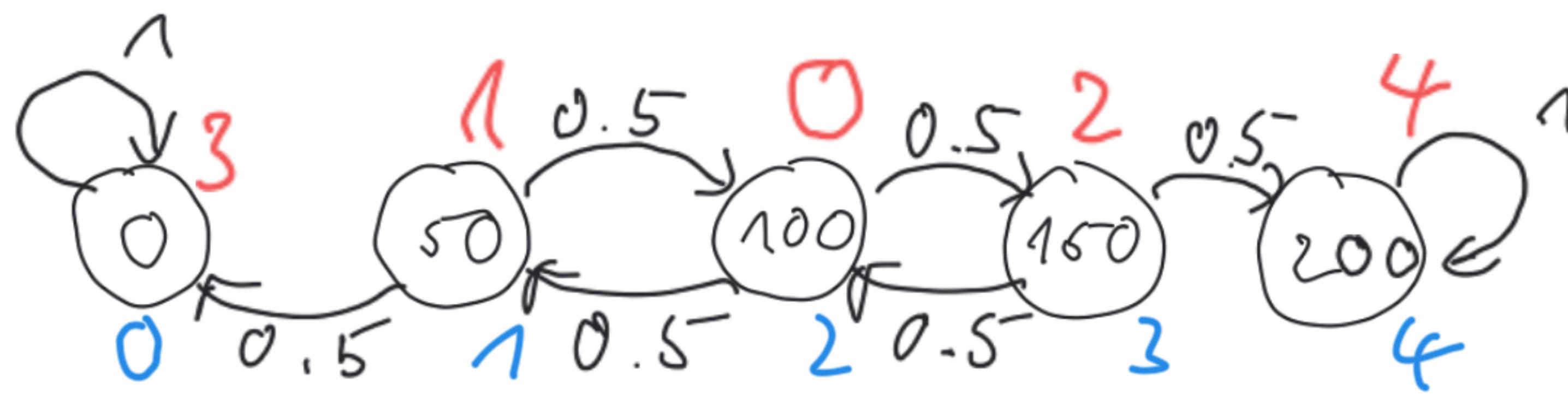


$$P = \begin{bmatrix} 0,8 & 0,2 \\ 0,5 & 0,5 \end{bmatrix}$$

$$\pi = (\pi_A, \pi_B)$$





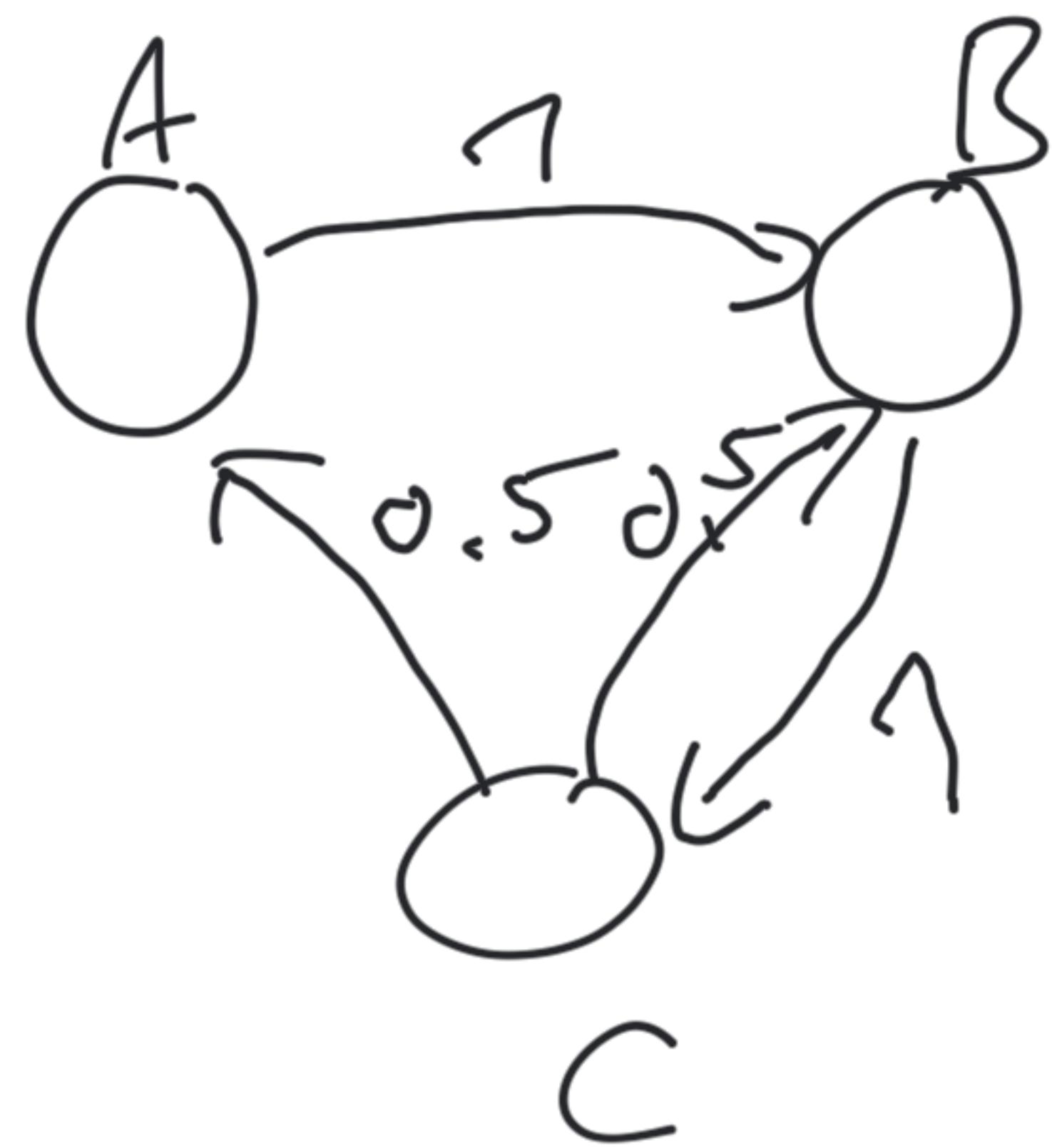
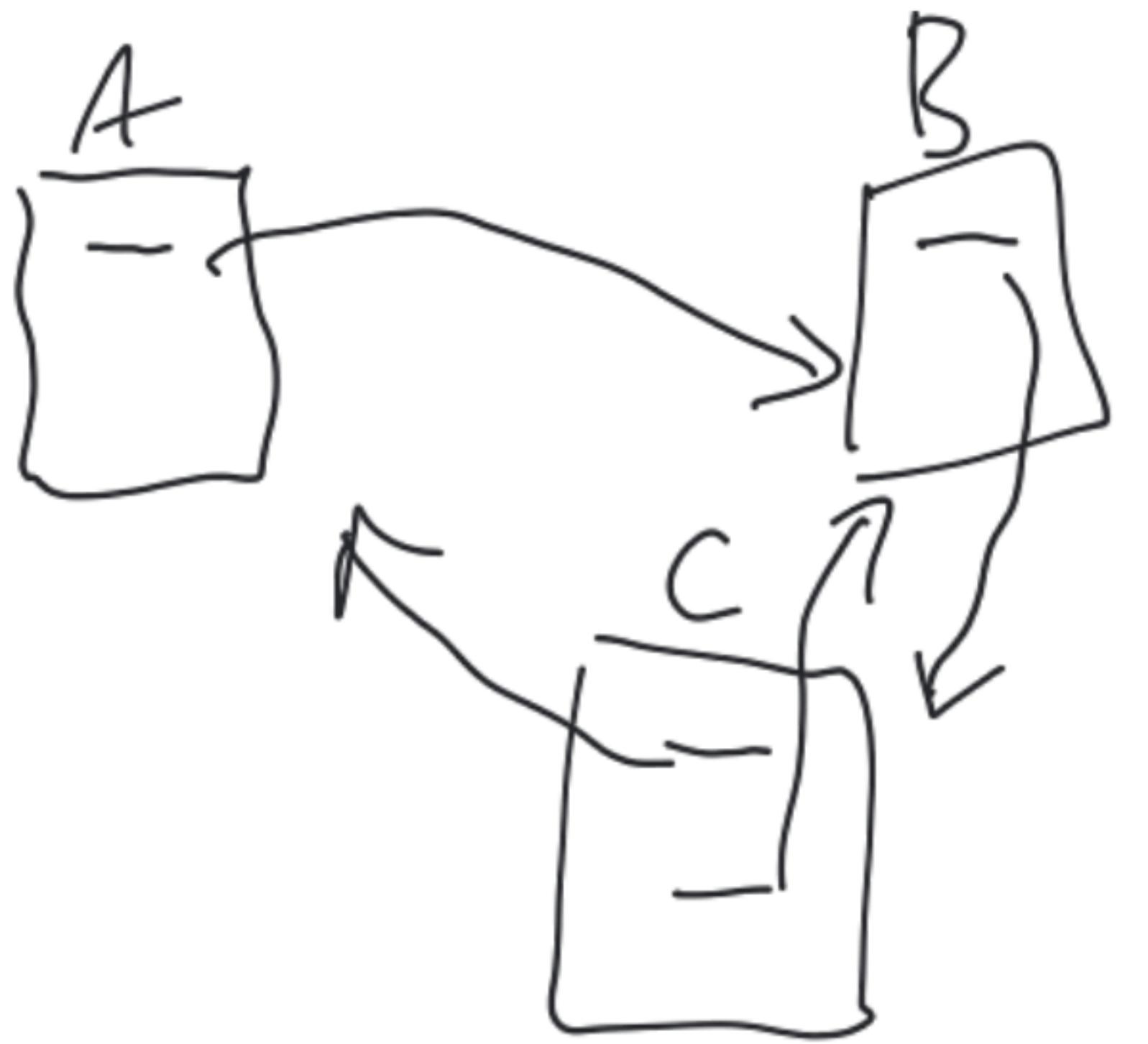
$$P = \begin{bmatrix} 1 & 0 & 0 & 0 & 0 \\ 0.5 & 0 & 0.5 & 0 & 0 \\ 0 & 0.5 & 0 & 0.5 & 0 \\ 0 & 0 & 0.5 & 0 & 0.5 \\ 0 & 0 & 0 & 0 & 1 \end{bmatrix}$$

$$\pi_0 = (0, 0, 1, 0, 0)$$



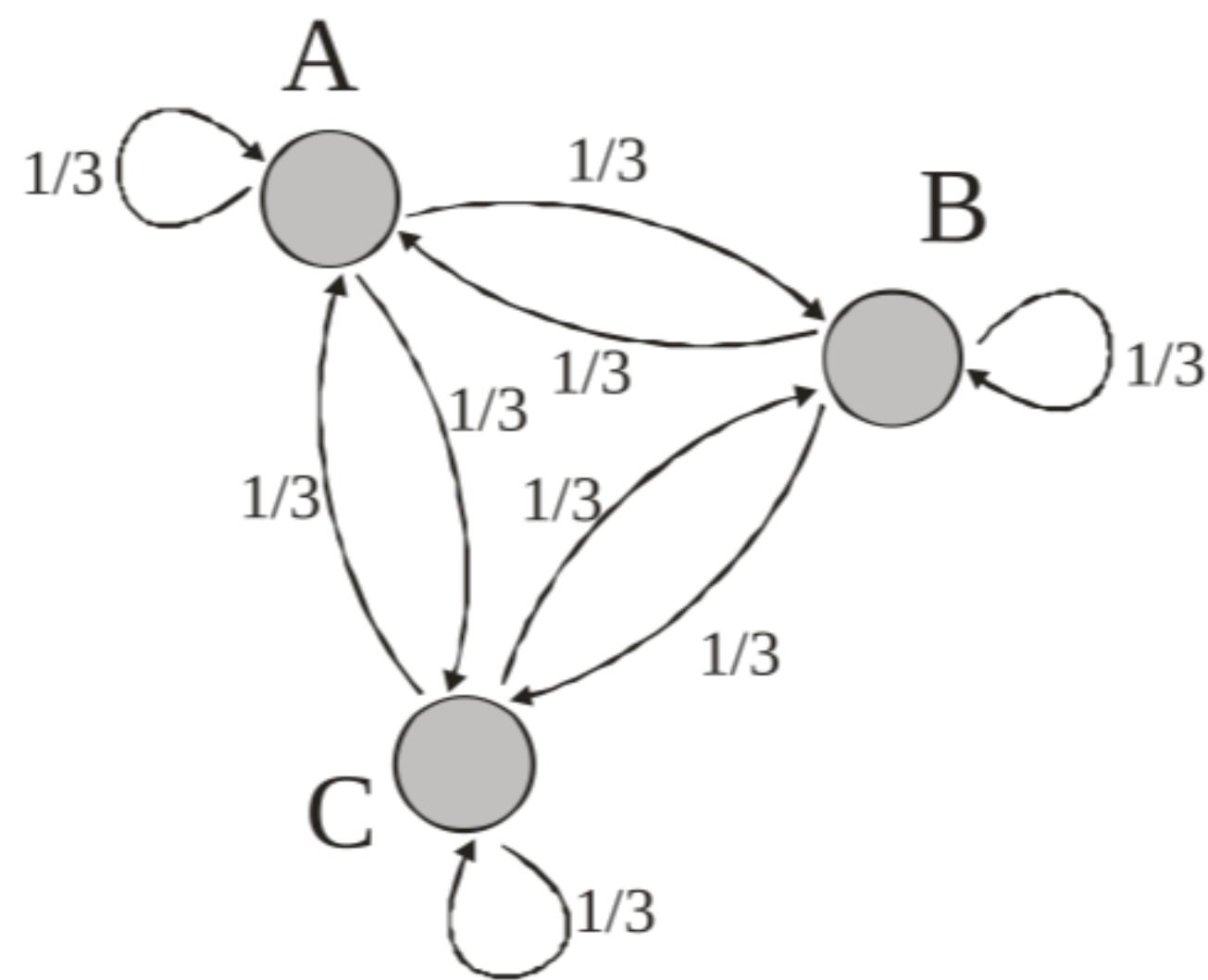
link 0,85

URL 0,15



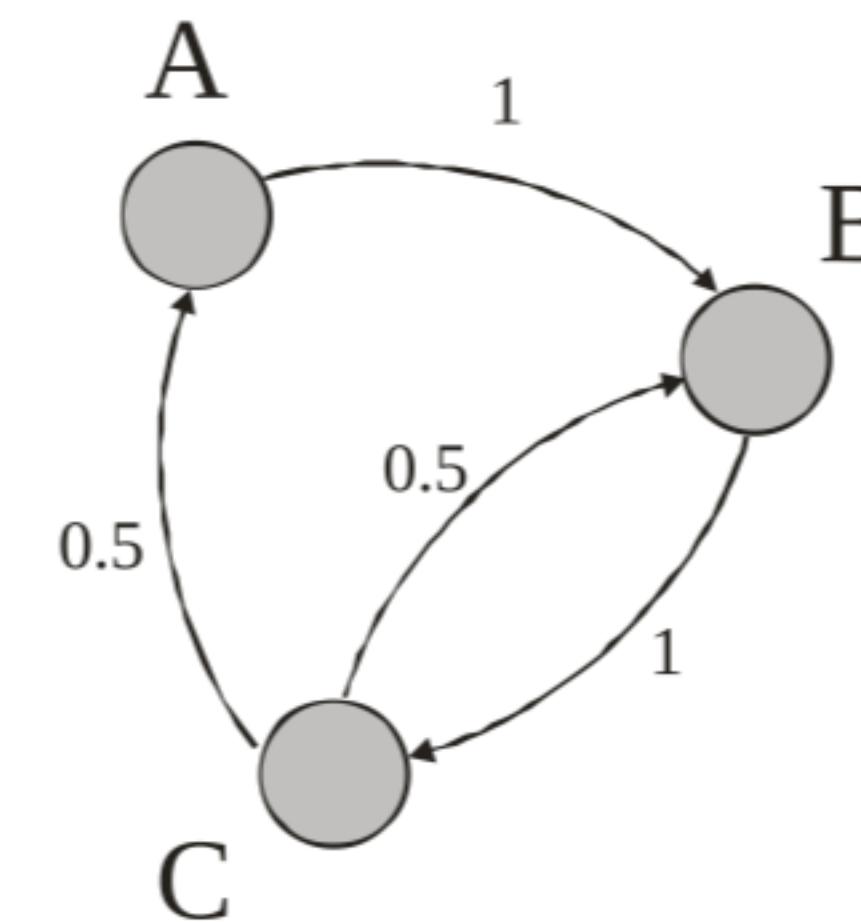
Enter any URL

0.25



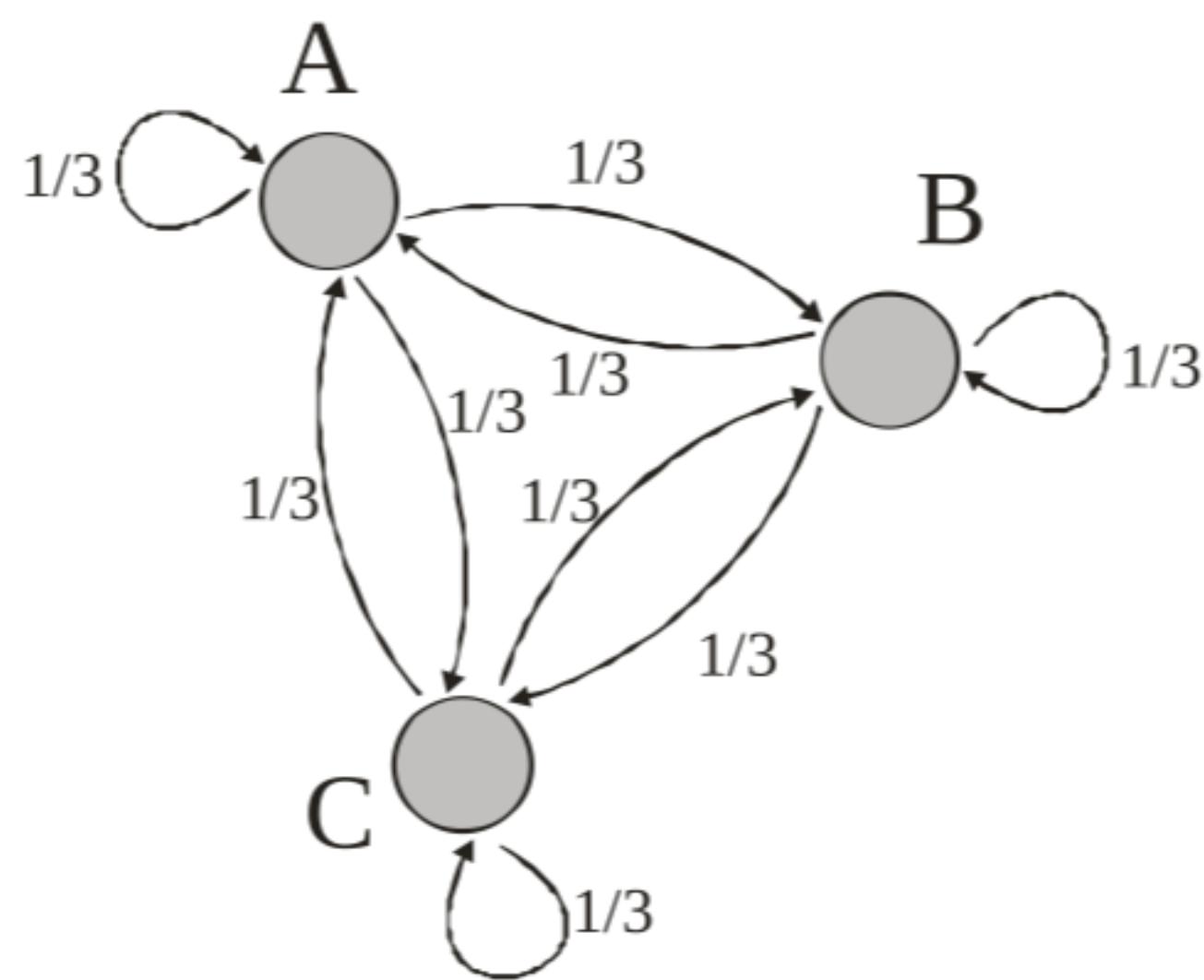
Follow a link

0.85

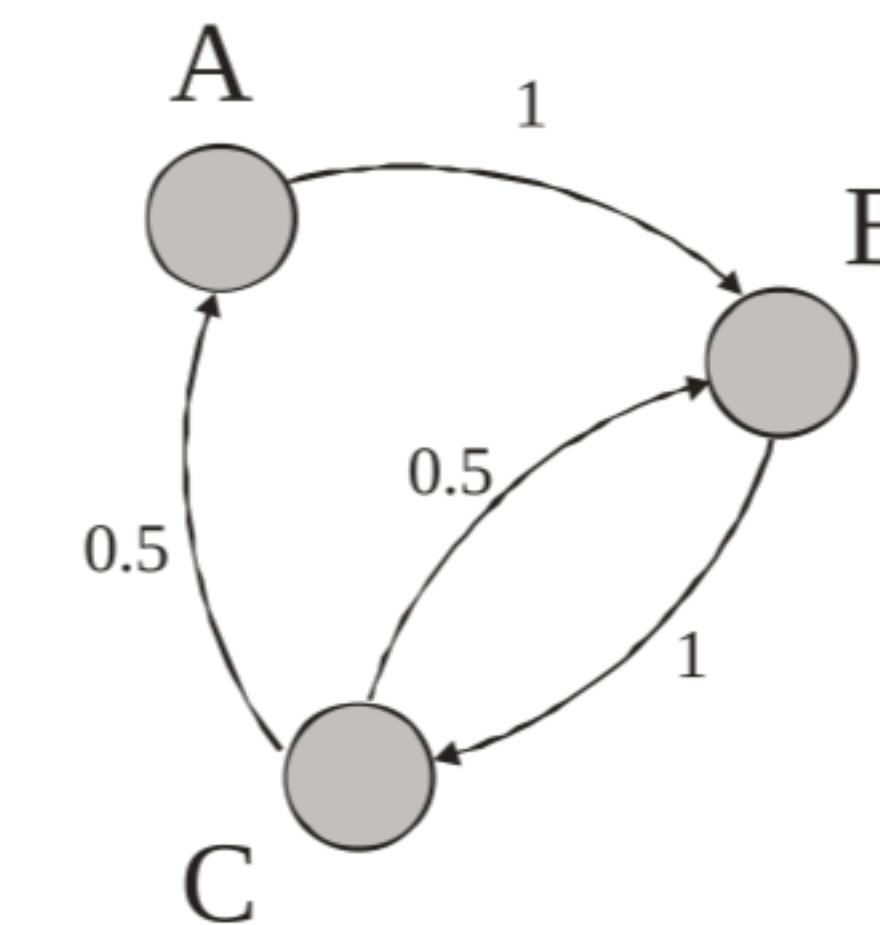


$$\frac{\alpha}{3} \begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{bmatrix} + (1 - \alpha) \cdot \begin{bmatrix} 0 & 1 & 0 \\ 0 & 0 & 1 \\ \frac{1}{2} & \frac{1}{2} & 0 \end{bmatrix} = \begin{bmatrix} \frac{\alpha}{3} & 1 - \frac{2\alpha}{3} & \frac{\alpha}{3} \\ \frac{\alpha}{3} & \frac{\alpha}{3} & 1 - \frac{2\alpha}{3} \\ \frac{1}{2} - \frac{\alpha}{6} & \frac{1}{2} - \frac{\alpha}{6} & \frac{\alpha}{3} \end{bmatrix}$$

Enter any URL



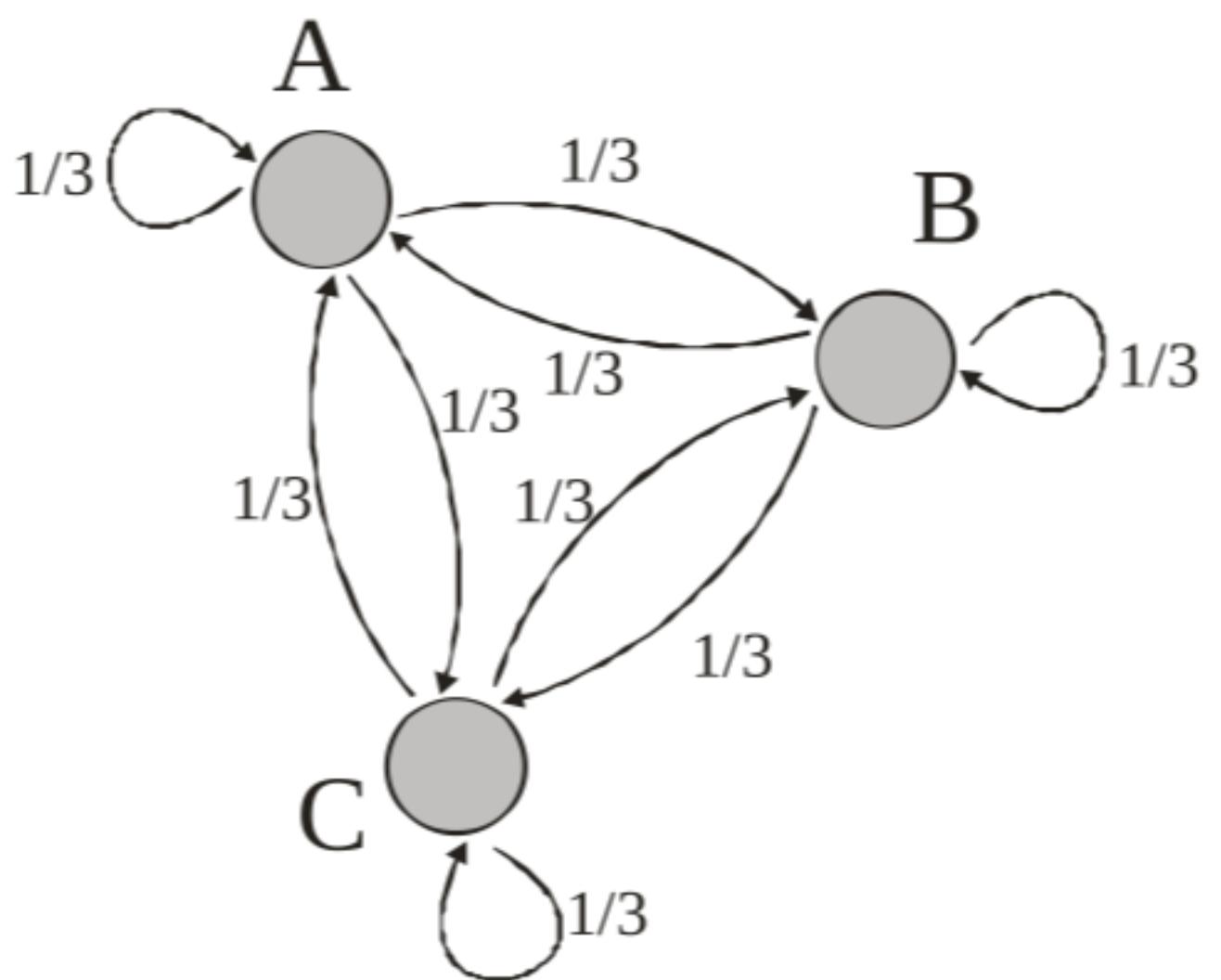
Follow a link



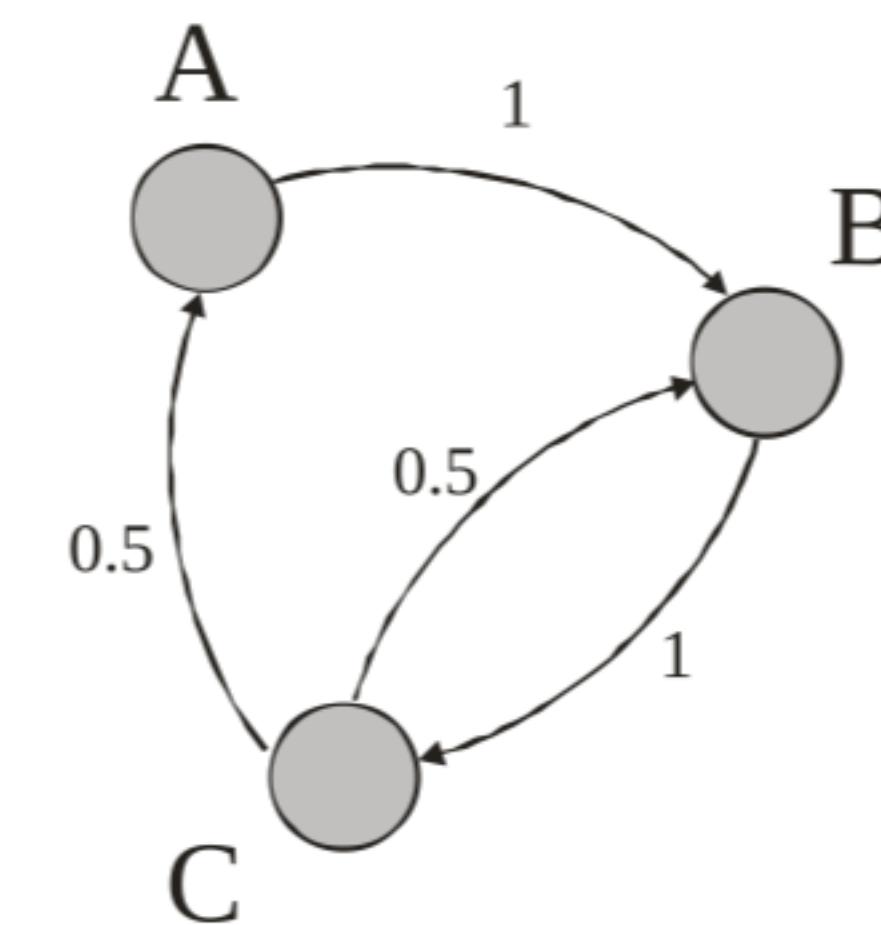
$$0.15 \bar{P}_0 = \begin{bmatrix} 1/3 & 1/3 & 1/3 \\ 1/3 & 1/3 & 1/3 \\ 1/3 & 1/3 & 1/3 \end{bmatrix}$$

$$0.85 \bar{P}_L = \begin{bmatrix} 0 & 1 & 0 \\ 0 & 0 & 1 \\ 0.5 & 0.5 & 0 \end{bmatrix}$$

Enter any URL



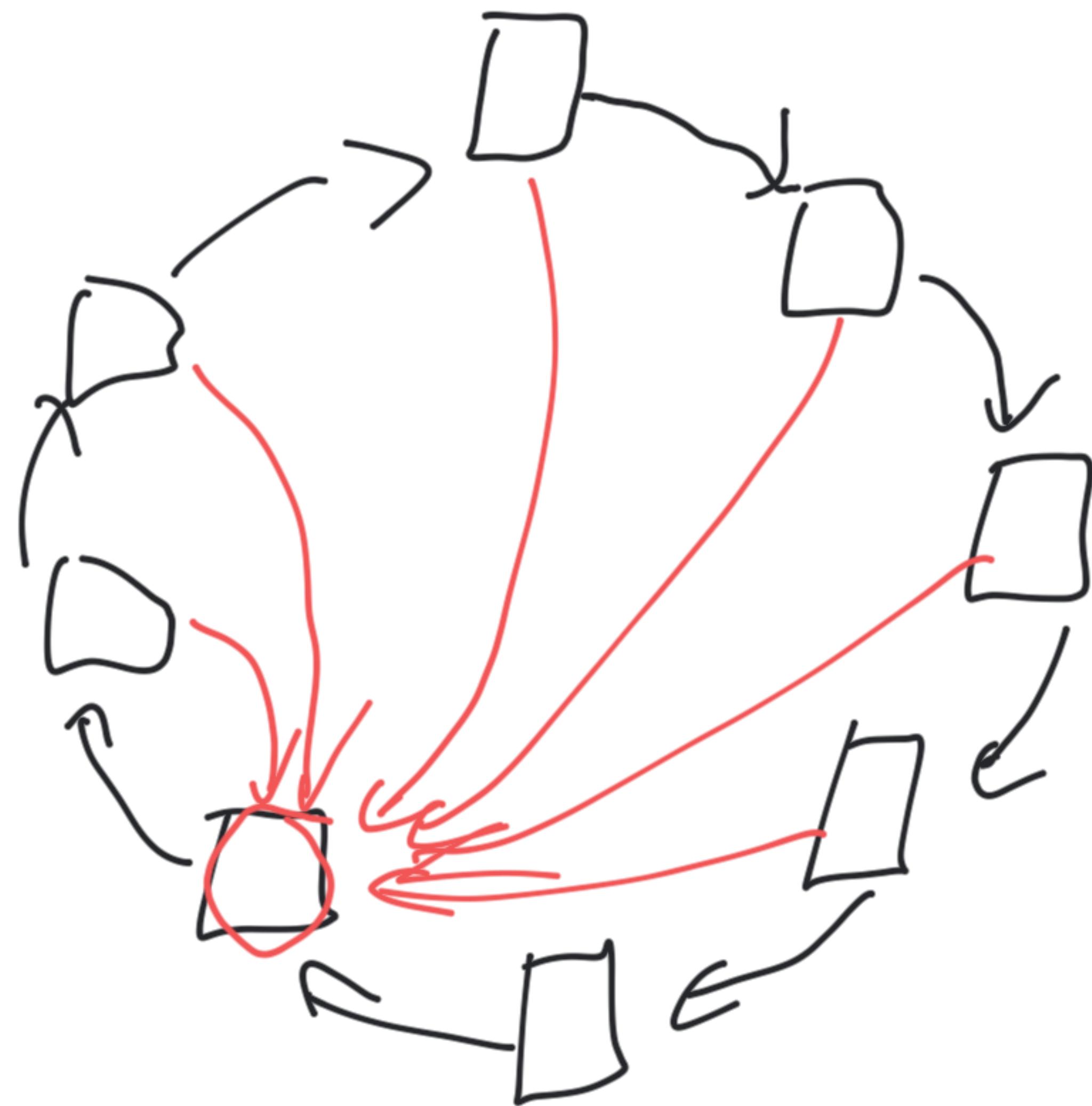
Follow a link



$$\alpha = 0.15$$

$$\frac{\alpha}{3} \begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{bmatrix} + (1-\alpha) \cdot \begin{bmatrix} 0 & 1 & 0 \\ 0 & 0 & 1 \\ \frac{1}{2} & \frac{1}{2} & 0 \end{bmatrix} = \begin{bmatrix} \frac{\alpha}{3} & 1 - \frac{2\alpha}{3} & \frac{\alpha}{3} \\ \frac{\alpha}{3} & \frac{\alpha}{3} & 1 - \frac{2\alpha}{3} \\ \frac{1}{2} - \frac{\alpha}{6} & \frac{1}{2} - \frac{\alpha}{6} & \frac{\alpha}{3} \end{bmatrix}$$

$$\left[ \begin{array}{ccc} 0.05 & 0.9 & 0.05 \\ 0.05 & 0.05 & 0.9 \\ 0.475 & 0.475 & 0.05 \end{array} \right]$$



$P, \pi_0$

$\pi_n = \pi_{n-1} \cdot P$

$\pi = \pi P$



