Lecture 27: Discrete dynamical systems

1   Choose 4 random numbers between 1 and 6.
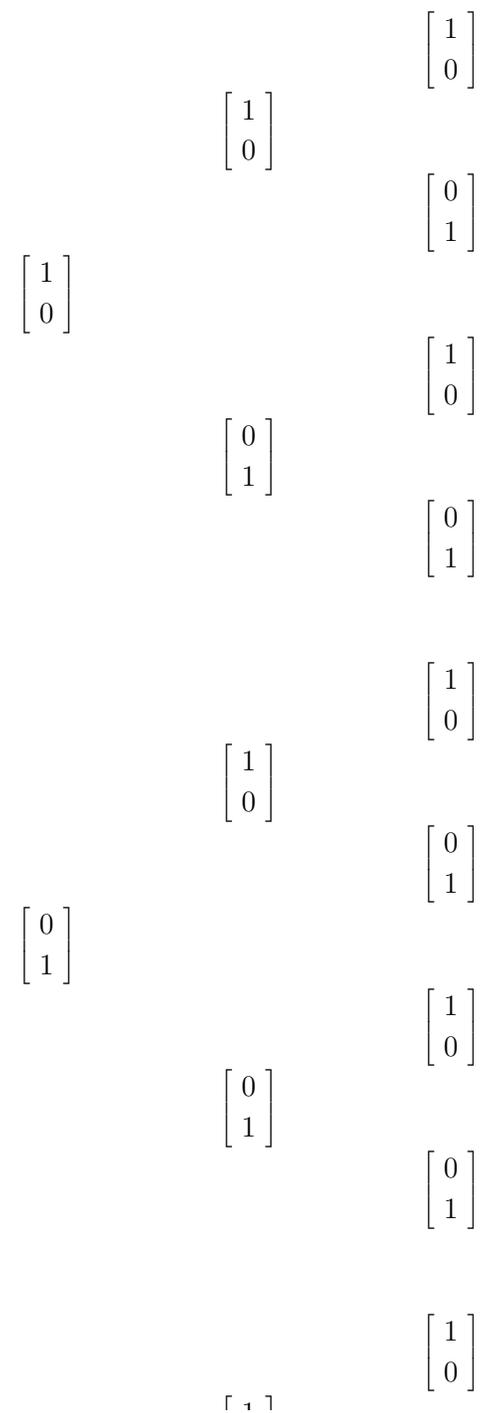
A	B	C	D

If the vector is e_1, then only go down if the number is 1 otherwise, go up. If the vector is e_2, then go down if the number is odd, otherwise, go up.

We now find experimentally the eigenvector of the Markov matrix

$$A = \begin{bmatrix} 5/6 & 1/2 \\ 1/6 & 1/2 \end{bmatrix}$$

to the eigenvalue 1 in class.

$$\begin{bmatrix} 1 \\ 0 \end{bmatrix}$$

$$\begin{bmatrix} 1 \\ 0 \end{bmatrix}$$

$$\begin{bmatrix} 0 \\ 1 \end{bmatrix}$$

$$\begin{bmatrix} 1 \\ 0 \end{bmatrix}$$

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