

## Problema 8

$$P(\text{dau} = 6) = 0.5$$

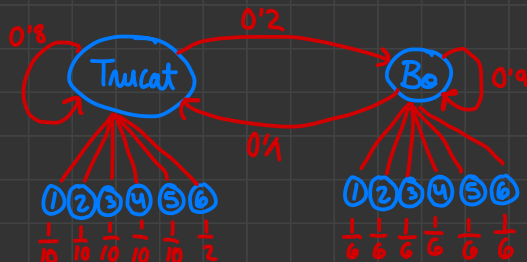
$$P(\text{dau} = 1) = \frac{1}{5} \cdot 0.5$$

$$P(\text{dau} = 2) = \frac{1}{5} \cdot 0.5$$

$$P(\text{dau} = 3) = \frac{1}{5} \cdot 0.5$$

$$P(\text{dau} = 4) = \frac{1}{5} \cdot 0.5$$

$$P(\text{dau} = 5) = \frac{1}{5} \cdot 0.5$$



$$\text{Si dau } 6 \rightarrow P(\text{camoi}) = \frac{1}{10}$$

$$\text{Si dau } \text{trucut} \rightarrow P(\text{camoi}) = \frac{1}{5}$$

$$P(\text{dau } \text{inici}) = 0.5$$

$$2- P(6), P(6|B_0), P(1)$$

$$\text{Prob. Inicial: } \begin{matrix} d_0 & B_0 & \text{Trucut} \\ 0.5 & 0.5 \end{matrix}$$

$$P(6|B_0) + P(6|\text{Trucut}) \cdot P(6|B_0) \cdot P(1|B_0) + P(1|\text{Trucut})$$

$$\left[ 0.5 \cdot \frac{1}{6} \right] + \left[ 0.5 \cdot 0.5 \right] \cdot \left[ \frac{0.9 \cdot \frac{1}{6} + 0.2 \cdot \frac{1}{6}}{0.9 \cdot \frac{1}{6} + 0.2 \cdot \frac{1}{6} + 0.1 \cdot 0.5 + 0.8 \cdot 0.5} \right] \cdot \left[ \frac{1}{6} \cdot 0.9 + \frac{1}{6} \cdot 0.2 \right] + \left[ \frac{1}{10} \cdot 0.8 + \frac{1}{10} \cdot 0.1 \right]$$

$$P(6), P(6|B_0), P(1) = 0.187$$