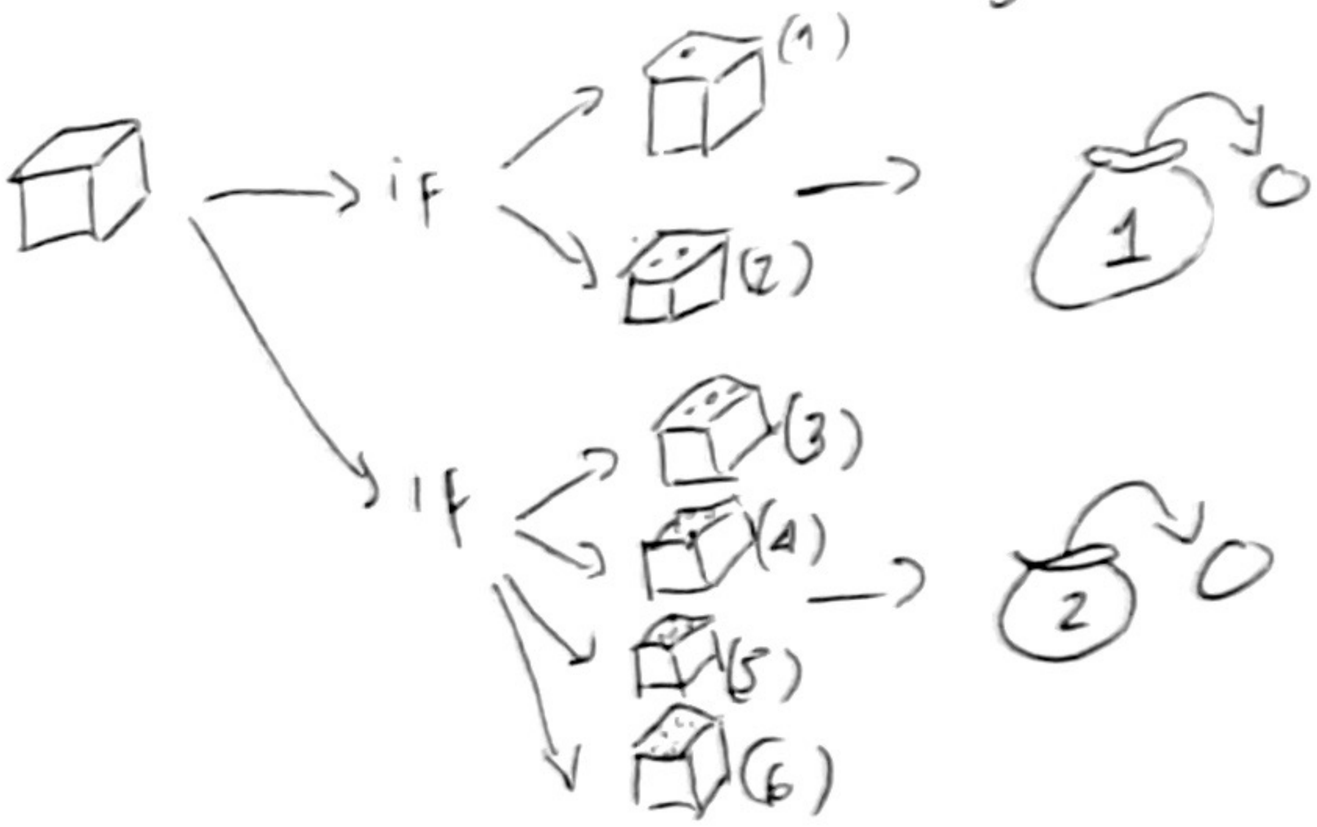
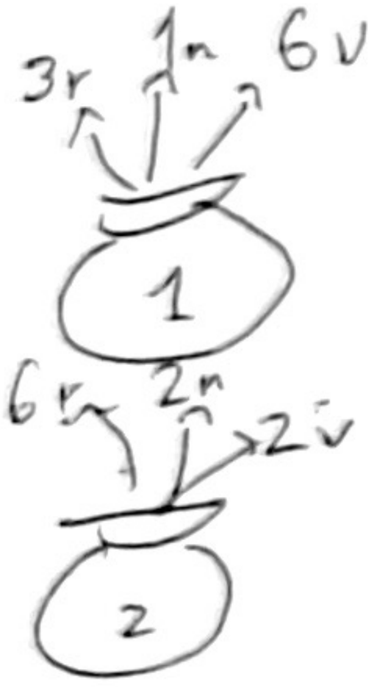
Probabilidad condicional y total





a) Sea roja:

$$= \frac{2}{6} \cdot \frac{3}{10} + \frac{4}{6} \cdot \frac{6}{10} = \frac{6}{60} + \frac{24}{60} = \frac{30}{60} = \boxed{\frac{1}{2}}$$

b) Sea negra:

$$\frac{2}{6} \cdot \frac{1}{10} + \frac{4}{6} \cdot \frac{2}{10} = \frac{2}{60} + \frac{8}{60} = \frac{10}{60} = \boxed{\frac{1}{6}}$$

c) Sea de la urna 1 si se ha obtenido negra

$$P(1/N) = \frac{\frac{2}{6} \cdot \frac{1}{10}}{\frac{1}{6}} = \frac{\frac{12}{60}}{} = \boxed{\frac{1}{5}}$$

d) Sea de la urna 2 si se ha obtenido negra:

$$P(2/N) = 1 - P(1/N) = 1 - \frac{1}{5} = \frac{5}{5} - \frac{1}{5} = \boxed{\frac{4}{5}}$$