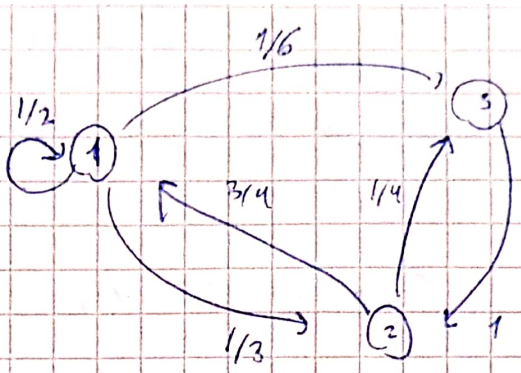
Ej 1.2.



$r(1)$	-2
$r(2)$	3
$r(3)$	5

$$g(s_1, s_2) = r(s_1 + s_2)$$

$E_1[g(s_1, s_2)]$ Calcular condicionado y en cadena.

↳ empezar aquí

$$E_1[g(s_1, s_2)] = E_1[r(s_1) + r(s_2)]$$

$$= E_1[r(s_1)] + E_{s_1}[r(s_2)]$$

$$= (CA)$$

FECHA

CA 1 ¿$\mathbb{E}_1[r(S_1)]$?

$$r_1(S_1) = \begin{cases} -2 & \text{con } p = 1/2 \\ 3 & \text{con } p = 1/3 \\ 5 & \text{con } p = 1/6 \end{cases}$$

E.T $\Rightarrow$ $\mathbb{E}_1[r(S_1)] = \frac{1}{2}\cdot(-2) + \frac{1}{3}(3) + (5)\cdot\frac{1}{6}$

$= 5/6.$

CA 2 ¿$\mathbb{E}_1[r(S_2)]$?

$r(S_2) = r(S_2 \mid S_1 = 1)\cdot P(S_1 = 1) + r(S_2 \mid \dots)$

$$r_1(S_2) = \begin{cases} -2 & \text{con } p = 1/2 \\ 3 & \text{con } p = 1/3 \\ 5 & \text{con } p = 1/6 \end{cases} \qquad r_3(S_2) \begin{cases} -2 & \text{con } p = 0 \\ 3 & \text{con } p = 1 \\ 5 & \text{con } p = 0 \end{cases}$$

$$r_2(S_2) = \begin{cases} -2 & \text{con } p = 3/4 \\ 3 & \text{con } r = 0 \\ 5 & \text{con } p = 1/4 \end{cases}$$

$\Rightarrow \mathbb{E}_1[r(S_2)] = \frac{1}{2}\left[\frac{1}{2}(-2) + \frac{1}{3}(3) + \frac{1}{6}(5)\right] + \frac{1}{3}\left[\frac{3}{4}(-2) + \frac{1}{4}(5)\right] + \frac{1}{6}[3] = 5/6.$

$\Rightarrow \mathbb{E}[g(S_1, S_2)] = \frac{5}{3} = 1,\overline{6}.$

COINCIDE con la simulación.