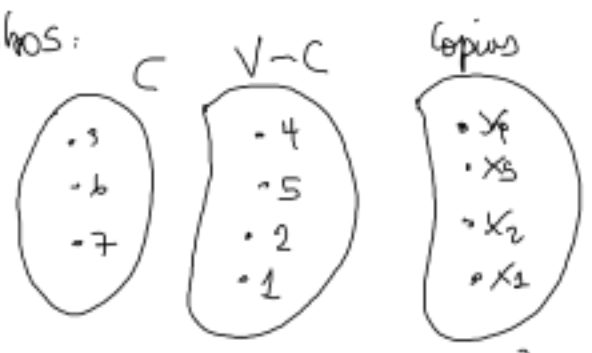
$g(v) = P_v(T_{v_0} < T_A)$

"partiendo en v, chocar v_0 antes que A"

g resuelve ec (3.22)

Nosotros:

g



Sea $v \in V - C = \{4, 5, 2, 1\}$

$$d_{v,C}(w) = \begin{cases} P_v(T_{C \cup copias} = T_{x_w}) \\ \text{cuando } w \in Copias\{X_4, X_5, X_6, X_7\}, \\ P_v(T_{C \cup copias} = T_w) \text{ si } w \in C = \{3, 6, 7\}, \\ 0 \quad \text{si } w \in V - C = \{4, 5, 2, 1\} \end{cases}$$

$$\begin{aligned} d_{v,C}(w) &= P_v(T_{C \cup copias} = T_w) \\ &= P_v(T_w < T_{C \cup copias - \{w\}}) \\ &= g(v), \quad \text{como } (3.25) \end{aligned}$$

cuando $\boxed{v_0 = w \text{ y } A = C \cup copias - \{w\}}$

- $$w_\mu = \begin{cases} \deg(\mu) + \eta_\mu & \text{si } \mu \in V - C \\ \deg(\mu) & \text{si } \mu \in V - (V - C) = C \cup copias \\ \eta_\mu & \text{si } \mu = \text{copia de } \mu \end{cases}$$

- $$w_{\mu\nu} = \begin{cases} 1 & \text{si } \{\mu, \nu\} \text{ arista original de } G \\ \eta_\mu & \text{si } \nu = \text{copia de } \mu \end{cases}$$

matriz de transición : $\boxed{P(\mu, \nu) = \dfrac{w_{\mu\nu}}{w_\mu}}$

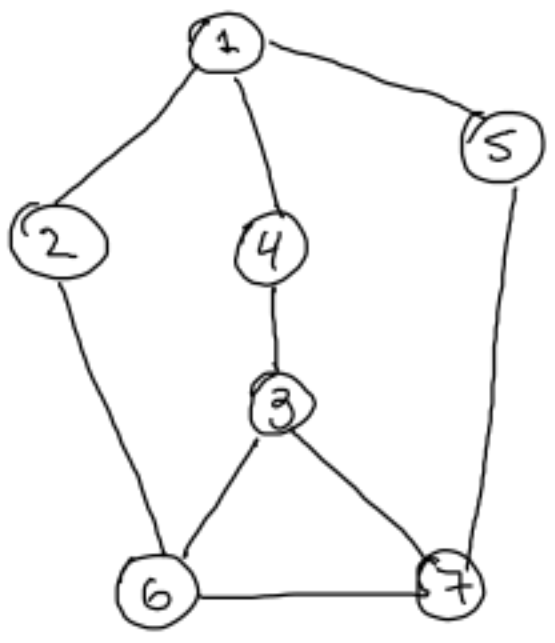
$$\boxed{g(v) = \sum_x P_{vx}\, g(x), \quad v \notin \{v_0\} \cup A}$$

$g(w) = 0 \quad \forall w \in V - C = \{4, 5, 1, 2\}$

- v inicial está en $C \cup copias$
  $\Rightarrow$ hitting es 1
- $v \in \{4, 5, 1, 2\}$
  fijamos en 0 esos 4 valores.
  $g(v) = 0 \quad \forall v \in \{4, 5, 1, 2\}$
  Calculamos para el resto
- $A = \{3, 6, 7\} \cup \{8, 9, 10, 11\}$

Para todo $v \in \{4, 5, 1, 2\}$,

$$\boxed{\begin{aligned} h_1 &= 0 \\ h_2 &= 0 \\ h_4 &= 0 \\ h_5 &= 0 \end{aligned}}$$



$v_0 = 3$

$A = \{6, 7, 8, 9, 10, 11\}$

- $g(3) = 1$
- $g(6) = g(7) = g(8) \cdots g(11) = 0$
- $\forall v \notin \{v_0\} \cup A = \{3, 6, 7, 8, 9, 10, 11\}$
  $v \in \{1, 2, 4, 5\}$

$\boxed{3.22}$

$$\begin{aligned} g(1) &= g(2)/4 + g(4)/4 + g(5)/4 \\ g(2) &= 1/3\, g(1) + 1/3\, g(6) + 1/3\, g(9) \\ g(4) &= 1/3\, g(3) + 1/3\, g(1) + 1/3\, g(10) \\ g(5) &= 1/3\, g(1) + 1/3\, g(7) + 1/3\, g(11) \end{aligned}$$

Ej) $g(2) \Rightarrow$ prob. de chocar target en nodo $\{3\} = \{v_0\}$, partiendo desde el 2

$$\boxed{\begin{aligned} g(2) &= 1/3\, g(1) \\ g(4) &= 1/3 + 1/3\, g(1) \\ g(5) &= 1/3\, g(1) \\ g(1) &= 1/4\,(g(2) + g(4) + g(5)) \end{aligned}}$$

$$\begin{aligned} g(1) &= 1/9 \\ g(2) &= 1/27 \\ g(4) &= 10/27 \\ g(5) &= 1/27 \end{aligned}$$