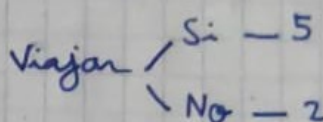
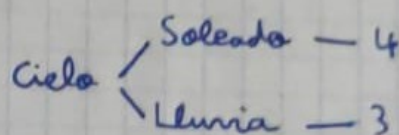
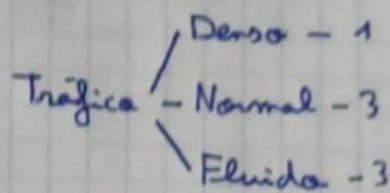


	Est. tráfico	Cielo	Viajar
1	Densa	soleado	No
2	Normal	soleado	Si
3	Fluido	Lluvia	Si
4	Fluido	soleado	Si
5	Normal	Lluvia	No
6	Fluido	Lluvia	Si
7	Normal	soleado	Si



$$V = \{S, N\}$$

(Est. tráfico, cielo)

¿Ganancia?

$$\left. \begin{array}{l} P(\text{viajar}) = 5/7 \\ P(\overline{\text{viajar}}) = 2/7 \end{array} \right\} E(\text{viajar}) = -(5/7) \log_2(5/7) - (2/7) \log_2(2/7) = 0,8631$$

Tráfico:

$$P(\text{denso}) = 1 \rightarrow E(\text{denso}) = 0$$

$$P(\text{viajar} \mid \text{fluido}) \rightarrow E = 0$$

$$\left. \begin{array}{l} P(\text{viajar} \mid \text{Normal}) = 2/3 \\ P(\overline{\text{viajar}} \mid \text{Normal}) = 1/3 \end{array} \right\} E(\text{Normal}) = [-(2/3) \log_2(2/3) - (1/3) \log_2(1/3)] \times 3/7 = 0,3936$$

$$G(\text{Tráfico}) = 0,8631 - 0,3936 = 0,4695$$

Cielo:

$$\left. \begin{array}{l} P(\text{viajar} \mid \text{soleado}) = 3/4 \\ P(\overline{\text{viajar}} \mid \text{soleado}) = 1/4 \end{array} \right\} E(\text{soleado}) = [-(3/4) \log_2(3/4) - (1/4) \log_2(1/4)] \times 4/7 = 0,4636$$

$$\left. \begin{array}{l} P(\text{viajar} \mid \text{lluvia}) = 2/3 \\ P(\overline{\text{viajar}} \mid \text{lluvia}) = 1/3 \end{array} \right\} E(\text{lluvia}) = [-(2/3) \log_2(2/3) - (1/3) \log_2(1/3)] \times 3/7 = 0,3936$$

$$E(\text{Cielo}) = 0,4636 + 0,3936 = 0,8572$$

$$G(\text{Cielo}) = 0,8631 - 0,8572 = 0,0059$$

Por lo tanto el estado de tráfico permite reducir mejor la incertidumbre que el cielo.