

SOLUCIÓN EJERCICIO TAXIS – INFERENCIA BAYESIANA

H1 – Taxi Verde

$$P(H1=\text{Taxi Verde})=0,85$$

$$P(\text{Testigo Taxi Azul} \mid \text{Taxi Verde})= 0,2$$

$$P(\text{Testigo Taxi Azul} \mid \text{Taxi Verde}) * P(H1=\text{Taxi Verde}) = P(E \mid H1) * P(H1) =$$

$$0,85 * 0,2 = 0,17$$

$$P(\text{Taxi Verde} \mid \text{Testigo Taxi Azul}) = (P(\text{Testigo Taxi Azul} \mid \text{Taxi Verde}) * P(H1=\text{Taxi Verde})) / P(E) =$$

$$0,17 / 0,29 = \mathbf{0,59}$$

H2 – Taxi Azul

$$P(H2=\text{Taxi Azul})=0,15$$

$$P(\text{Testigo Taxi Azul} \mid \text{Taxi Azul})= 0,8$$

$$P(\text{Taxi Azul} \mid \text{Testigo Taxi Azul}) = (P(\text{Testigo Taxi Azul} \mid \text{Taxi Azul}) * P(H2=\text{Taxi Azul})) / P(E) =$$

$$(0,8 * 0,15) / 0,29 = \mathbf{0,41}$$

Factor normalización:

$$P(E) = 0,85 * 0,2 + 0,15 * 0,8 = 0,29$$