

Idea del Clasificador de Naïve Bayes (Solución del Reto)

Paso 2

#4 Probabilidad a Posteriori

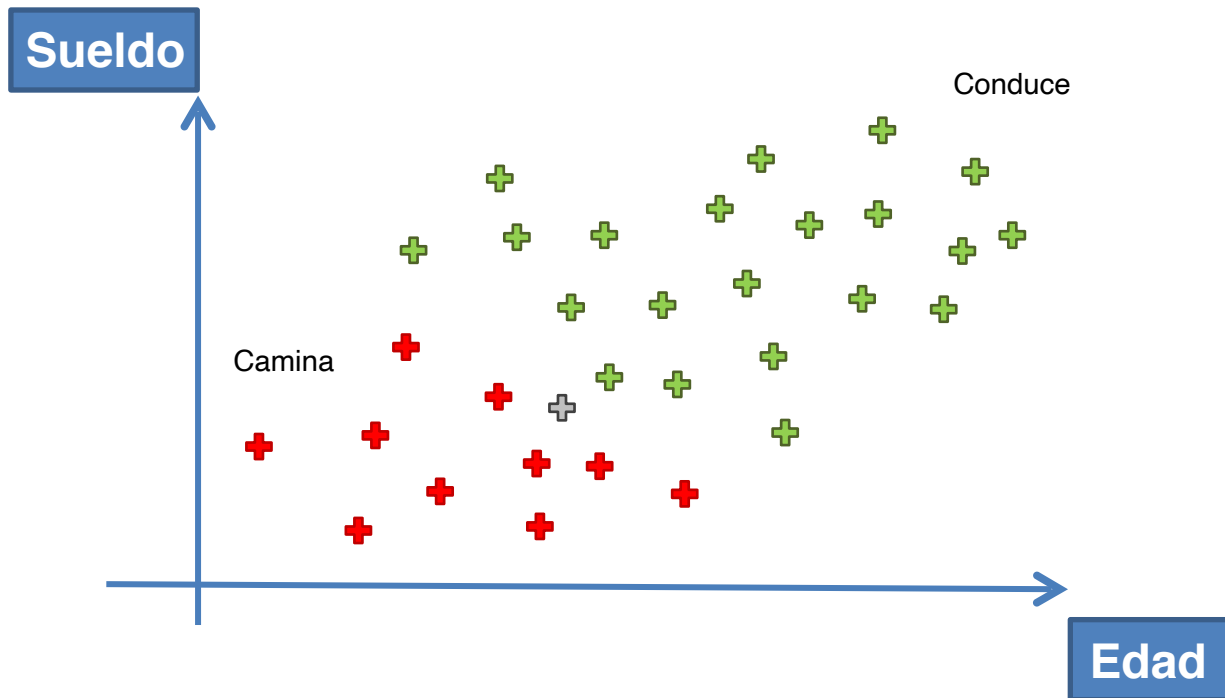
#3 Probabilidad Condicionada

#1 Probabilidad a Priori

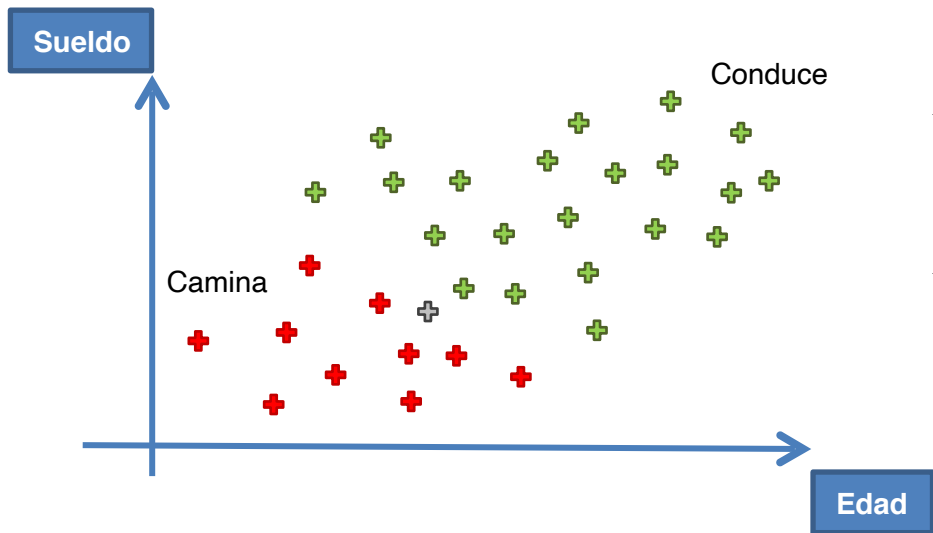
#2 Probabilidad Marginal

$$P(Drives | X) = \frac{P(X | Drives) * P(Drives)}{P(X)}$$

Naïve Bayes: Paso 2



Naïve Bayes: Paso 2

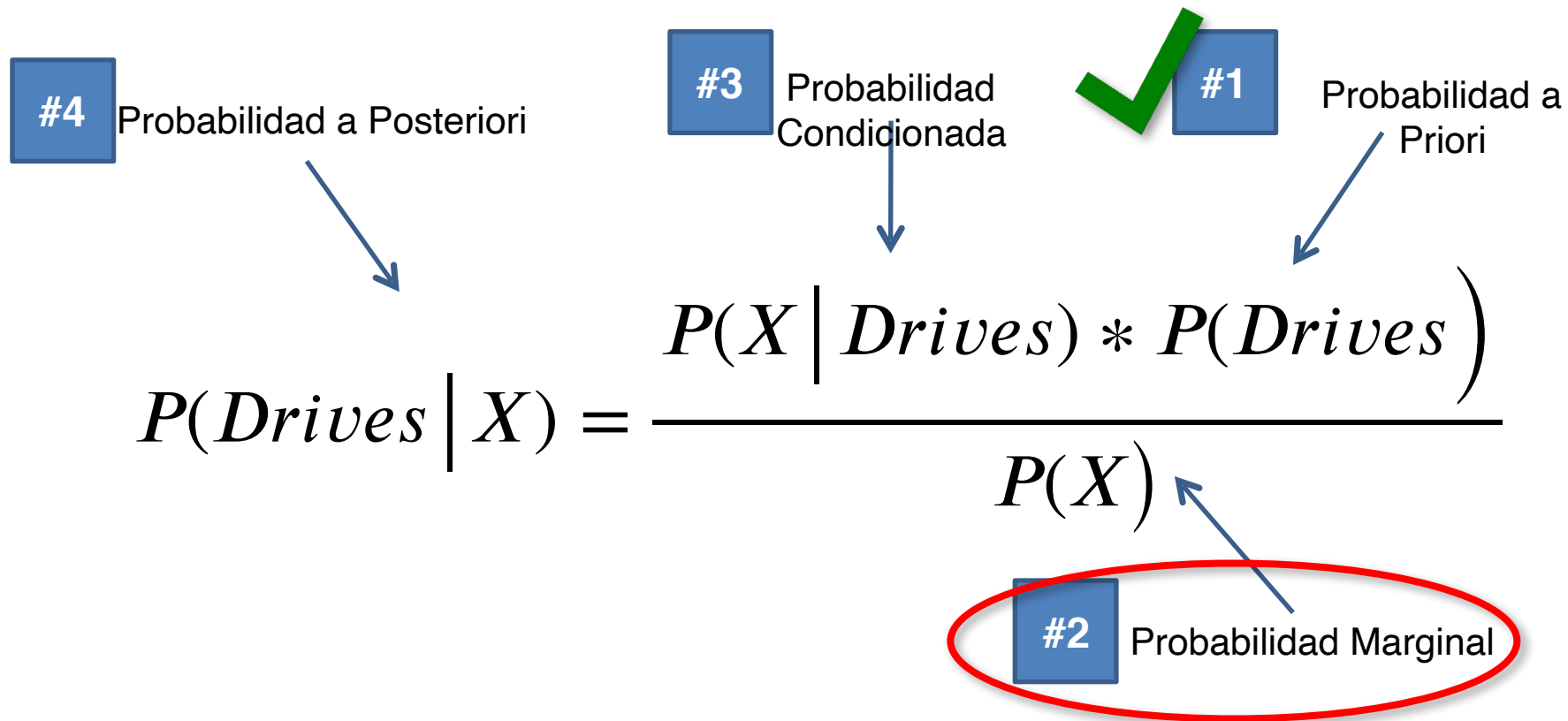


#1. $P(\text{Conduce})$

$$P(\text{Drives}) = \frac{\text{Number of Drivers}}{\text{Total Observations}}$$

$$P(\text{Drives}) = \frac{20}{30}$$

Naïve Bayes: Paso 2

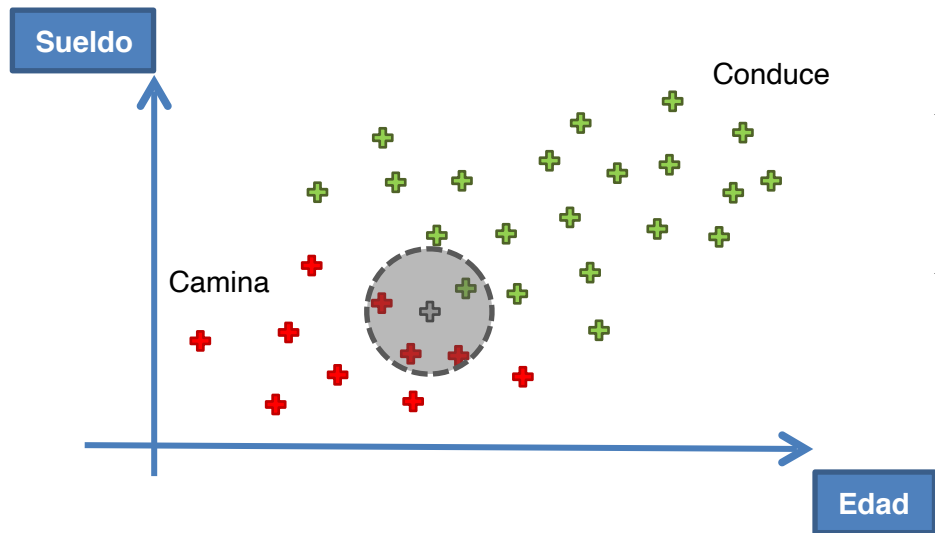


The diagram illustrates the components of the Naïve Bayes formula. It features four numbered blue boxes with arrows pointing to parts of the equation:

- #4** Probabilidad a Posteriori: Points to the left side of the equation, $P(Drives | X)$.
- #3** Probabilidad Condicionada: Points to the numerator's first term, $P(X | Drives)$.
- #1** Probabilidad a Priori: Points to the numerator's second term, $P(Drives)$. This box is marked with a large green checkmark.
- #2** Probabilidad Marginal: Points to the denominator, $P(X)$. This box and its label are circled in red.

$$P(Drives | X) = \frac{P(X | Drives) * P(Drives)}{P(X)}$$

Naïve Bayes: Paso 2

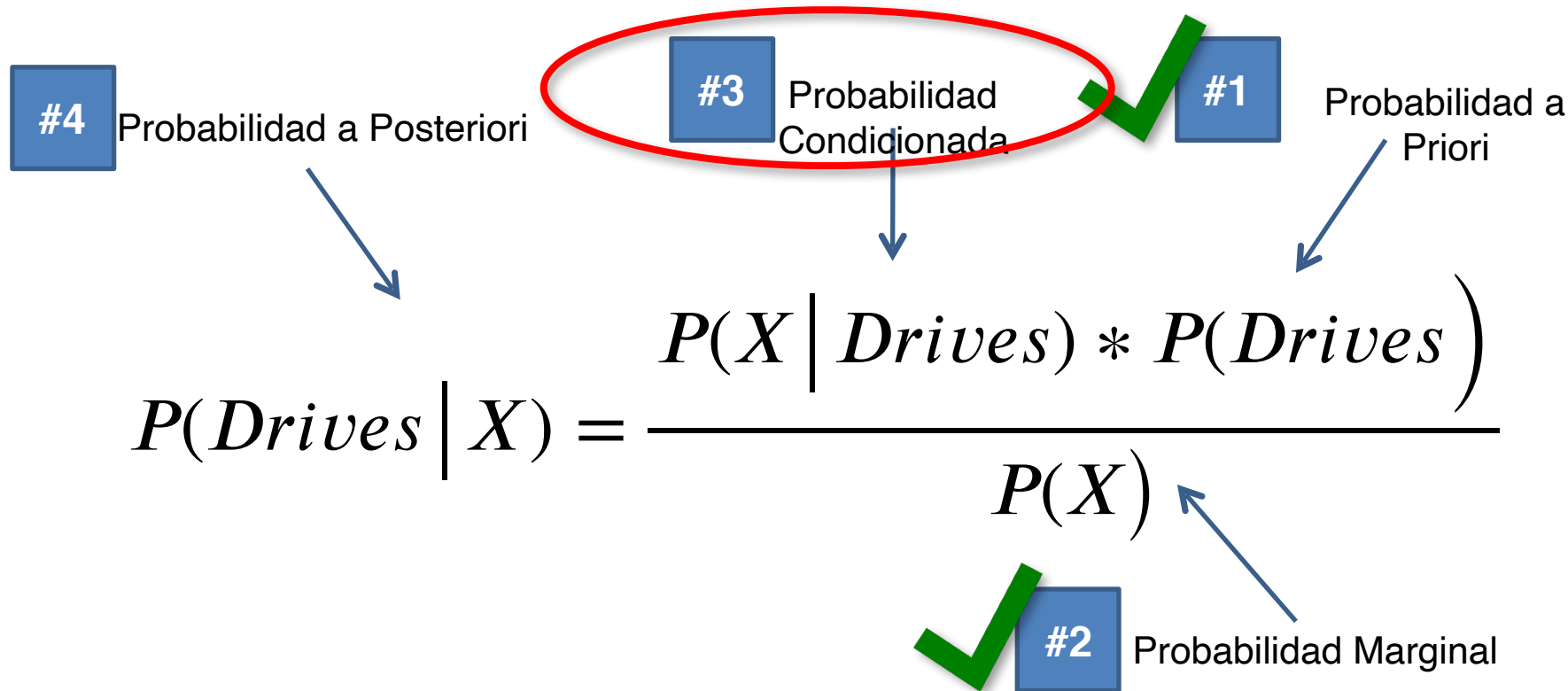


#2. $P(X)$

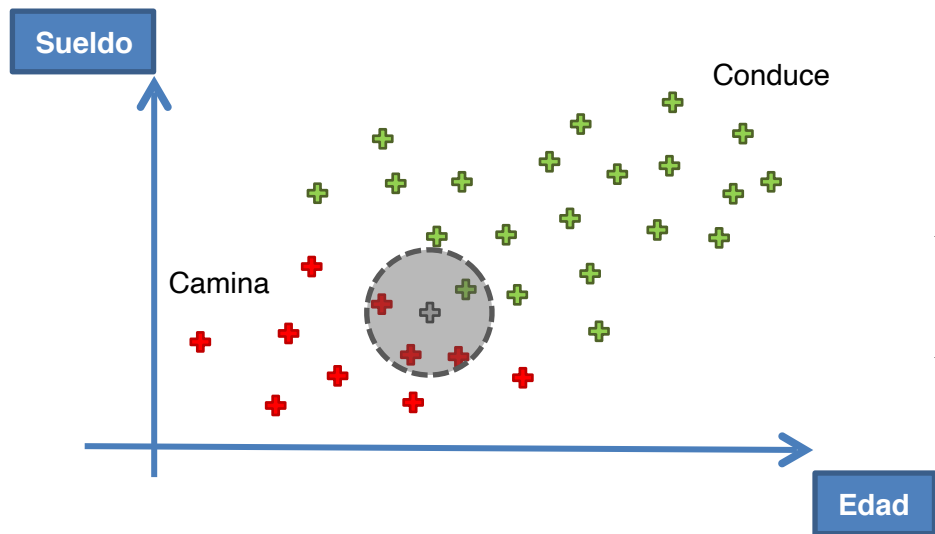
$$P(X) = \frac{\text{Number of Similar Observations}}{\text{Total Observations}}$$

$$P(X) = \frac{4}{30}$$

Naïve Bayes: Paso 2



Naïve Bayes: Paso 2



#3. $P(X|Conduce)$

*Number of Similar
Observations*

$$P(X | Drives) = \frac{\text{Among those who Drives}}{\text{Total number of Drivers}}$$

$$P(X | Drives) = \frac{1}{20}$$

Naïve Bayes: Paso 2

#4 Probabilidad a Posteriori

#3 Probabilidad Condicionada

#1 Probabilidad a Priori

#2 Probabilidad Marginal

$$P(Drives | X) = \frac{P(X | Drives) * P(Drives)}{P(X)}$$

Naïve Bayes: Paso 2

#4 Probabilidad a Posteriori

✓ #3 Probabilidad Condicionada

✓ #1 Probabilidad a Priori

✓ #2 Probabilidad Marginal

$$P(Drives | X) = \frac{\frac{1}{20} * \frac{20}{30}}{\frac{4}{30}} = 0.25$$

Naïve Bayes

Paso 2 – Fin.