

# Step 2

The diagram illustrates the components of Bayes' Theorem and their relationship to the posterior probability formula. It features four numbered blue boxes with arrows pointing to the corresponding terms in the equation:

- #4** Posterior Probability: Points to the left side of the equation,  $P(Drives|X)$ .
- #3** Likelihood: Points to the numerator term  $P(X|Drives)$ .
- #1** Prior Probability: Points to the numerator term  $P(Drives)$ .
- #2** Marginal Likelihood: Points to the denominator term  $P(X)$ .

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