

Denominator Identical for All Colors

We can get a similar expression for each of the four colors.

$$\text{prob}(\text{color} | \text{N AND I AND F}) = \frac{\text{prob}(\text{color AND N AND I AND F})}{\text{prob}(\text{N AND I AND F})}$$

We only care about the relative probabilities for a classifier.

The denominator is the same—just a number.

So we can **ignore it** in comparisons.