

What is the (**prior**) probability of dog pictures overall?



$$P(\mathcal{C}_1|\vec{x}) = \frac{P(\vec{x}|\mathcal{C}_1)P(\mathcal{C}_1)}{P(\vec{x})}$$

Probability of the Features **x** = the **Evidence**  
(In the example: could be high level, e.g. overall color  
*green, brown, ...*)