

# Classification: Choosing the Right Category or Value

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Given a set of data with many features,

- one can **use probabilistic reasoning**
- based on Bayes' Theorem
- **to “classify” missing features** of a new data point
- (in other words, to pick the most likely value for the missing features).

Let's start with a simple example—the game of craps—then develop a Naïve Bayes Classifier for a more complex example.