- Given the training data $\mathcal{D} = \{\mathbf{x_1}, \ldots, \mathbf{x_n}\}$ as a set of n labeled examples, the *nearest neighbor classifier* assigns a test point $\mathbf{x}$ the label associated with its closest neighbor in $\mathcal{D}$.
- Closeness is defined using a distance function.
- Given the distance function, the nearest neighbor classifier partitions the feature space into cells consisting of all points closer to a given training point than to any other training points.