**From Quora**

**How does K-nearest neighbor classification break ties?**

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[Answered Jul 11, 2016](https://www.quora.com/How-does-K-nearest-neighbor-classification-break-ties/answer/Atila-Ng)

**Assigning the class of the first found neighbor is as good as random. There are 3 methods for breaking a tie:**

**1-) Pick the class with the highest a priori, i.e. the class that is observed most in the dataset**

**2-) Switch to 1-nn and classify again**

**3-) randomly assign a class**

**To elude ties, odd numbered k’s are preferred. However, tie scores in k-nn indicate low confidence in the prediction and I do not recommend that you count on the result.**

**Other suggestions: decrease k by 1 until you break the tie.**

**From Cross Validated**

answered Dec 10 '12 at 20:03

[sjm.majewski](https://stats.stackexchange.com/users/12895/sjm-majewski)

**When doing kNN you need to keep one thing in mind, namely that it's not a strictly, mathematically derived algorithm, but rather a simple classifier / regressor based on one intuition - the underlying function doesn't change much when the arguments don't change much. Or in other words the underlying function is locally near-constant. With this assumption, you can estimate the value of underlying function in any given point, by a (possibly weighted) mean of the values of nearest k points.**