**Training data points:**

* Point 1: (5,1) with label 0
* Point 2: (5,2) with label 1
* Point 3: (3,5) with label 1
* Point 4: (2,5) with label 0

**Step-by-step distance calculations:**

1. **Distance to Point 1 (5,1) sqrt (0 + 16)** ​=4
2. **Distance to Point 2 (5,2) sqrt (0 + 9)** ​=3
3. **Distance to Point 3 (3,5)** **sqrt (2 + 0)** ​=2
4. **Distance to Point 4 (2,5)** **sqrt (9 + 0)** ​=3

**Sorting distances:**

* Point 3: Distance = 2, Label = 1
* Point 2: Distance = 3, Label = 1
* Point 4: Distance = 3, Label = 0
* Point 1: Distance = 4, Label = 0

**Nearest 3 neighbors:**

* Point 3 (Label = 1)
* Point 2 (Label = 1)
* Point 4 (Label = 0)

**Majority vote:**

The labels of the 3 nearest neighbors are: 1, 1, 0. The majority label is 1.

**Final classification:**

The test data (5,5) is classified as **label 1**.