**Reachability-distance:**

Reachability distance of (xi, xj) is max of k-distance(xj) or dist(xi, xj).

Let’s say k=5.

Now if xi is within neighborhood of xj then reach-dist(xi, xj) = k-distance(xj) or 5-distance(xj).

Now if xi is not within or outside of neighborhood of xj then reach-dist(xi, xj) = dist(xi, xj) or dist(xi, xj). Because now dist(xi, xj) is greater than 5-distance(xj)

**reachability distance(A,B)=max(k-distance(B),dist(A,B))**



