

1. the vertices in the undirected graph
2. If the two vertices are connected, they are equivalent. The relation is reflexive, symmetric, and transitive.
3. at the beginning, every vertex in the graph will be in its own equivalence class, the number of classes is equal to the number of vertices.
4. in each iteration, we will have two vertices and check if the two vertices is connected, if so, make the two vertices into one equivalence class.
5. when each pair of vertices in the graph is checked, or when every vertex is in a single equivalent class.