3.

DFS algorithm runs in O(|V|+|E|)

At the first, we should know DFS have two choice one is directed another one is undirected, but them are same for big O theorem.

I use directed in my code.

V meaning vertices and E meaning edges.

We must check each one vertex, so the big O of V is O(|V|), and the for the edges is O(|E|), so the big of DFS algorithm is O(|V|+|E|)

4.

DAG algorithm runs in O(|V|+|E|)

V meaning vertices and E meaning edges.

Topological sorting meaning a linear order of each one vertex, is u is the input point of v that meaning v must before u in the linear order.

So need check each one point output and input that meaning each one edges of the DAG graph and for the each one edges must have input point and vertex so need check all vertex too. so the big O will be all vertex O(|V|) and all edges O(|E|), put them together will be O(|V|+|E|)