

CSE 417: Homework 2

Name: Qingchuan Hou

Student ID: 2127437

UWNetID: qhou

Problem 3:

The gist of the problem above applies equally well to Depth First Search — different, equally valid, DFS spanning trees may arise depending on the order in which you explore the edges incident to a visited node. Consider the graph used as an example in lecture (approx slides 72-110), but for simplicity remove the two edges $\{A, J\}$ and $\{B, J\}$. The examples shown on those slides remains a valid DFS starting from vertex A of this smaller graph, but obviously without those two edges. Always starting DFS from node A , how many different spanning trees are possible and briefly describe how each arises and what changes compared to the picture on slide 110.