CS 410 Summer 2000 **Quiz 13** **Monday July 31**

Name: ______________________________ ID: ________________

In the context of breadth-first search (BFS) invoked as BFS (G,s):

1. *What is $\delta(s, v)$? Give it's name and definition.*

   The **shortest-path distance** is the minimum length (number of edges) of any path from s to v.

2. *How is it different from $d[v]$?*

   $d[v]$ is a value computed by BFS. It is the "time" v is *discovered* and turned gray. (We were able to prove this value is equal to $\delta(s, v)$, but it is defined differently)