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)