Data Structures Quiz 11 (20 minutes)

Name: _____ NetID: _____

By participating in this quiz, you agree to adhere to the honor code.

Implement a method with the following signature:

```
static <V, E> boolean SearchAFollowsB(Vertex<V> start, V A, V B, Graph<V, E> graph)
```

The method should return `true` if there exists a pair of vertices, `v1` and `v2`, in the given graph such that:

1. `v1` is the parent of `v2`. That is, there is an edge from `v1` to `v2`.
2. `v1` contains the value `A`. `v2` contains the value `B`.
3. The length of the shortest directed path from `start` to `v1` is exactly one less than the length of the shortest directed path from `start` to `v2`. This is not equivalent to condition 1.

If no such pair of vertices exists, the method should return `false`. **Note:** Assume that the graph is represented using an adjacency list and that the `Vertex` and `Graph` classes are already defined with the necessary methods and properties. `graph` is a directed graph.