

# Programming Assignment 5 - Friendship Graph Algorithms

## Test Cases

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- **shortestChain: 35 pts**

1. 3 pts: file [sptest1.txt](#)  
Input: aparna, kaitlin  
Result: Empty
2. 4 pts: file [subtest3.txt](#)  
Input: kaitlin, nick  
Result: [kaitlin,nick]
3. 7 pts: file [assnsample.txt](#)  
Input: nick, aparna  
Result: [nick,ricardo,aparna]
4. 7 pts: file [sptest4.txt](#)  
Input: p1, p50  
Result: [p1,p49,p50] OR [p1,p51,p50]
5. 7 pts: file [subtest5.txt](#)  
Input: p1, p10  
Result: [p1,p2,p3,p4,p5,p6,p7,p8,p9,p10]
6. 7 pts: file [subtest5.txt](#)  
Input: p301, p198  
Result: [p301,p100,p99,p98,p198]

- **cliques: 25 pts**

Note: For the non-empty results, order of names within a list does not matter.  
So any permutation of the results given here would be fine.  
(This includes a different order of lists within the top level list, as well.)

1. 2 pt: file [subtest1\\_2.txt](#)  
Input: cornell  
Result: Empty
2. 3 pt: file [subtest1\\_2.txt](#)  
Input: rutgers  
Result: [[kaitlin]]
3. 5 pts: file [subtest3.txt](#)  
Input: rutgers  
Result: [[sara],[kaitlin]]
4. 5 pts: file [clqtest4.txt](#)  
Input: rutgers  
Result: [[p1,p2,p3,p4]]
5. 5 pt: file [assnsample.txt](#)  
Input: rutgers  
Result: [[sam,jane,bob,kaitlin],[sergei,aparna]]
6. 5 pt: file [subtest5.txt](#)  
Input: rutgers  
Result: [[p3,p104,p4,p204],[p98,p199,p99,p299]]

- **connectors: 40 pts**

Note: For the non-empty results, order of names within a list does not matter.  
So any permutation of the results for #5 and #6 given here would be fine.

1. 4 pts: file [subtest1\\_2.txt](#)  
Result: Empty
2. 4 pts: file [clqtest4.txt](#)  
Result: Empty
3. 8 pts: file [subtest3.txt](#)  
Result: [nick]
4. 8 pts: file [subtest4.txt](#)  
Result: [p1]
5. 8 pts: file [assnsample.txt](#)  
Result: [jane, aparna, nick, tom, michele]
6. 8 pts: file [conntest6.txt](#)  
Result: [p2,p3,p4]