

Name & Student Number:

1. For linear search in a list, which data structure (between an array list and a linked list) is likely to give a faster result? Why?
2. When your program needs to access a value in a particular memory address, list the memory layers **in the order** in which they are queried/accessed by the operating system? [Memory layers: Disk, RAM, CPU register, L2 Cache, L1 Cache]
3. Draw a graph with three nodes such that exactly two topologically orderings.
4. Draw a graph with 5 nodes that has two strongly connected components