

In the name of God

**Department of Physics**

**Shahid Beheshti University**

**COMPUTATIONAL PHYSICS**

**Exercise Set 11**

(Due Date: 1402/03/21)

1. For the given graphs below, iterate Grover's search algorithm to find the correct colorings (\*Be sure to write your own interpretation of the measurement results of your circuit)
2. For both graphs, check your answer by designing a circuit which measuring part determines whether a graph is bipartite or not.

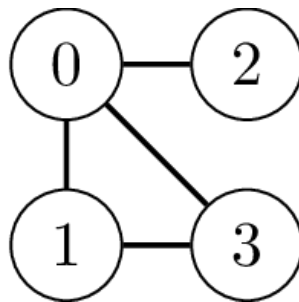


Figure 1

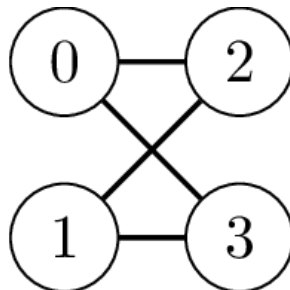


Figure 2