

CSCI 256: Exercise # 3

Due: Fri, Sept 18, in class

Your Name: _____

Assigned reading for this lecture:

- Kleinberg Tardos Section 3.3

Read Section 3.3 in KT that reviews graph data structures.

Fill in the blanks below.

Question 1: Suppose we store a graph G with n vertices and m edges as an **adjacency matrix**.

The space required to store G is $O(\text{_____})$.

To check whether (u, v) is an edge in G takes $O(\text{_____})$ time.

Question 2: Suppose we store a graph G with n vertices and m edges as an **adjacency list**.

The space required to store G is $O(\text{_____})$.

To check whether (u, v) is an edge in G takes $O(\text{_____})$ time.