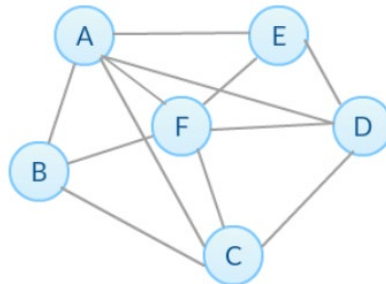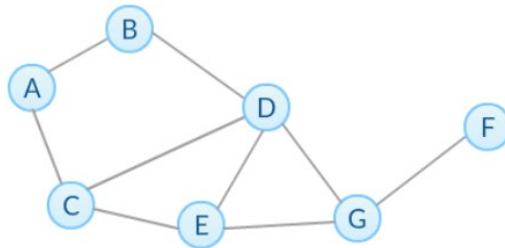# VE 444 Networks
Homework1, Oct.16. 2020

Instructions: 1. Submit your file into a pdf file. 2. Name your submitted file as studentID_Name_Hwk1, for example, for submissions from Andy Bi with student id 123, his file name should be 123_Andy_Bi_Hwk1. 3. Write necessary explanations rather than simply your answer to demonstrate your reasoning process.

1. Consider the following network, what is value of node F's local clustering coefficient?

2. Consider the network shown below and either answer the following question

2.1 What is the diameter of this graph？
2.2 The deletion of node G will make the network disconnected. True or False？
2.3 Draw the BFS tree from the node A, and determine the depth of this tree.

3. Refer to NCM, finish exercise 2.1, 2.3, 3.2, 5.3, 6.5, 6.15, 9.4, 9.9, 10.9 (a.b means problem b in the list of exercises of Chapter a.)
   NCM can be found in the following link:
   http://www.cs.cornell.edu/home/kleinber/networks-book/networks-book.pdf