

Presentation Problems for Graph Theory

Every class there will be a problem presented to the class by students. The presentation should take between 5 and 7 minutes, not more than 10. There will be 3 students designated as **notetakers** during the presentation who will take complete notes to be handed in at the end of class. These notes will be posted for the class to see and study from, so make sure they are complete by asking questions and writing neatly.

Group size: You are required to do 1 presentation during the course of the semester. However, you can work with up to two of your classmates (i.e. groups of 3 people). If you are in a group of n students, the n of you will present, as a group, n times in order to earn full credit for the presentation part of the course grade. If $n > 1$, the work for each presentation should be evenly distributed amongst the n of you.

Questions: A list of presentation problems will be posted on Blackboard which will be updated regularly. You will be able to see your presentation problem between 4 and 7 days before you will be presenting it (they are carefully matched to what we are learning in class). This means that if you are in a group of $n > 1$, you will need to meet with your group right before your presentation. **It is likely that there will be words in your problem that are not defined until the class before your presentation** so don't freak out.

Signing up for dates: There will be a schedule for you to sign up on passed around the first day of class, and again until it is full. This is first come first serve unless you speak to me about serious conflicts that could not be fixed by signing up on your own.

Grading: Presentation problems are 20 % of your final grade. Of that, 3 points are for your notetaking, you must take notes 3 times during the semester and you earn one point each time. The remaining 17 points are for your presentation itself. Your presentation will be graded by the following rubric:

Correct work presented	8 points
Concise work	2 points
Clear presentation	2 points
Answer questions	2 points
Distribute work amongst group members	3 points

Correct work presented: Your presented work should be factually and logically correct. If you are unsure if your work is correct, come to office hours or email me at least on day before your presentation. If you make an error in writing your work on the board, and can quickly correct it showing complete understanding when asked about it, you will likely still get full credit for correctness. However if you can not see an illogical step or cannot correct it, you will not earn the full points.

Concise work: There are many ways to solve these questions, and multiple proof methods may apply. There is no "best" proof, but there are certainly ways to correctly prove these problems that will take far more than the maximum 10 minutes. If the only way you can solve the problem is very long with multiple

pages of work, please try to find a shorter proof, and if you have difficulties, please talk to me.

Clear presentation: Your classmates will be using what you present as study material for their exams, so make sure they understand what you are presenting. The real test of clarity is in the notetaking, if your three notetaker classmates can have a clear, understandable solution written down, then you have communicated clearly. Your classmates should be able to take readable notes that can be understood days or weeks later.

Answer questions: It is possible that you present your work so clearly that there are no questions. But likely your classmates or I will have a question for you. Each member of your group should understand your problem and solution well enough to answer, or confidently say “We don’t know, that is not in the scope of the question we worked on.”

Distribute work fairly: If you are a group of 1, these three points are distributed through the three previous categories. For larger groups, any member of your group should be able to answer any question, and each person should present a significant part of each presentation. It is usually pretty clear if one of you does not know what is happening.

Notetaking: Your notes should be readable, and as clear as possible while accurately reflecting the presentation. If part of the presentation is unclear, it is your responsibility to raise your hand and ask the presenters about it. One of the three sets of notes will be scanned and posted for your classmates to see after each presentation, so make sure your notes are removable from your notebook.