General: Please remember to paperclip or staple (2) if you are using different colored pens to color a graph, blue and black don’t work very well. You can use “C1”, “C2”, etc.

p. 66-12a. The most popular Hamiltonian circuit wasn’t the one I gave. That’s ok. Several people gave non-circuits. That’s not ok.

p. 66-24. Lots of wrong answers. This problem (and #5) are important. Think of counting sequentially. At each point, how many choices do you have?

p.69-30. Check your addition folks! And remember that it adds up to the same thing in both directions.

p. 76-68a. This question only asked for the critical path. It came in Ch. 2 on schedule.

p. 118-64. In general, it’s not enough to say “can’t color”. You should try to explain why the pattern

Δ rules out 2 colors

Δ rules out 3 colors

To say a graph has chromatic number = k means that you have k colors.

3. Spanning trees have to reach every vertex and be connected. If the graph G has n vertices, any spanning tree has n-1 edges. There were more errors in adding up the weights than in drawing the trees.

4. To point 2 problems like this is to give you a chance to create versions of non-rational objects we study. There is no single right answer.

5. See comment to p. 68 #24. A common answer to 5c) was N (N-1) N (N-1) N, which suggests groups of you are walking together. That’s great, but this answer is wrong.

(i) Pick a song #1 N choices
(ii) song #2 ≠ song #1 N-1 choices
(iii) song #3 ≠ song #2 N-1 choices (not N choices)
(iv) song #4 ≠ song #3 N-1 choices
(v) song #5 ≠ song #4 N-1 choices

These will definitely be a problem like p. 68 #24 or this on the final test.