

Due: Friday, April 3, 2020

Name 1(Print) _____ CSE Login _____

Name 2(Print) _____ CSE Login _____

Problem	Page	Notes	Points	Score
9.1:26	582		2	
9.1:32	582	Find $S \circ R$ and $R \circ S$	4	
9.1:34 (b,d,f,h)	582		4	
9.1:36 (b,d,f,h)	582		4	
(Bonus) Problem A	n/a	See below	6	
9.3:4 (c)	596		2	
9.3:8	596	Note: only for (c)	2	
9.3:10 (b,c,e)	596		9	
9.3:14 (a,c,d)	596	Note: $M_{S \circ R} = M_R \cdot M_S$	6	
9.3:22	597		2	
9.3:32	597	Note: do for problems 24, 26, 28	9	
9.3:34	597		2	
9.3:36	597		4	
9.4:26 (a,b,d)	607		10	
9.4:28 (a,b,d)	607		10	
Typesetting (bonus)			7	
Total			70	

Problem A- Prove or disprove each of the following using the definitions and without using the Lemma on page 15 of the slides:

- If R is asymmetric, then R is antisymmetric.
- If R is antisymmetric, then R is asymmetric.

Instructions Follow instructions *carefully*, failure to do so may result in points being deducted.

- The homework must be submitted on paper. Homework *neatly* formatted in \LaTeX will receive a 10 percent bonus. When formatting in \LaTeX , submit both the .tex and .pdf files via handin, in addition to the hard copy. You will not receive the bonus points if you work with a partner (see below).

- Clearly label each problem and submit answers *in order*.
- Staple this cover page to the front of your assignment for easier grading.
- Late submissions *will not be accepted*.
- When you are asked to prove something, you must give a formal, rigorous, and complete a proof as possible. Each step in your proof must contain explanation that would allow us to understand what theorem/logic you have applied to arrive at that step.
- You are to work individually, and all work should be your own. Check partner policy below.
- The CSE academic dishonesty policy is in effect (see http://cse.unl.edu/ugrad/resources/academic_integrity.php).

Partner Policy You may work in pairs, but you must follow these guidelines:

1. You must work *all* problems *together*. You may not simply partition the work between you.
2. You must use \LaTeX and you may divide the typing duties however you wish.
3. You may not discuss the problems with other groups or individuals.
4. Hand in only one hard copy with both author's names.