

Instructions: Bring your answers to class on Monday 26th February at 10am.

1. (8 points) Textbook problem 7.2, both parts (a) and (b). Make sure to explain your answer to part (a). You need not explain your answer to part (b).
2. Complete the proof of proposition 7.14 in the textbook by giving a proof of:
 - (a) (4 points) Inductive step 4.
 - (b) (6 points) Inductive step 6.
3. (6 points) Textbook proposition 7.17.
4. (10 points) Prove textbook proposition 7.18, both parts.
5. (14 points) Give a detailed proof of proposition 7.19.
6. (6 points (bonus)) Prove textbook proposition 6.19.