

**Instructions**

- Answer each question completely; justify your answers.
  - This assignment is due at 17:00 on Thursday October 27th in Assignment Box #23.
1. Exercise 3.2.7, part (d).
  2. Exercise 3.2.10, except part (a).
  3. Exercise 3.2.13.
  4. Exercise 3.2.22, part (b).
  5. Exercise 3.2.23, part (c).
  6. Exercise 3.3.3, except part (c).
  7. Prove that  $|(-3, 10)| = |(4, 5)|$ .
  8. Exercise 3.3.19, parts (a) and (c).
  9. Exercise 3.3.20, except parts (a) and (e).
  10. Is the following statement true or false: if  $A$  and  $B$  are sets such that  $A \subsetneq B$  then  $|A| < |B|$ . Explain.