

Math 3000, Homework assignment #6 (first part)

1. Read Section 3.3
2. Do Practice 3.2.3 and Practice 3.2.4 for yourself. (Do not turn in.)
3. For each set below, determine carefully which of the field axioms (A1-DL) it satisfies and which ones it doesn't. Give a brief explanation or counterexample for each axiom not satisfied.
 - (a) $P = \{x : x > 0\}$.
 - (b) $S = [-5, 5]$.
4. Section 3.2: 1,2,3adefg. Take note of the remaining properties in exercise 3.
5. Prove: if p and q are rational, then pq is rational.
6. Turn in all of the above.