

Do the following problems from [SHE]:

- P. 51, Review exercises, #13, 15, 17, 18, 19, 20, 21, 22.

Prove the following statements from the handout *The Real Numbers and the Integers*. Justify each step by citing either an axiom, a definition, or a previous theorem. Try to organize your proof so that each step requires only one such justification.

- Theorem 2(b). [Hint: Try starting with the statement $(-a) + (-(-a)) = 0$.]
- Theorem 2(e). [Hint: Try starting with $(-1 + 1)a = (-1)a + (1)a$.]
- Theorem 3(d).
- Theorem 7(a).
- Theorem 7(b).