

## **HOMEWORK 1.**

Due Monday, September 12, in class.

1. Do Problem 7 in Section 1.2.
2. Do Problem 18 in Section 1.2.
3. Do Problem 19 in Section 1.2.
4. Prove or disprove: If operations  $+$  and  $\cdot$  are defined on a set  $V$  and if they satisfy conditions (VS2) – (VS8), then they satisfy condition (VS1).
5. Prove or disprove: If operations  $+$  and  $\cdot$  are defined on a set  $V$  and if they satisfy conditions (VS1) – (VS4) and (VS6) – (VS8), then they satisfy condition (VS5).