

PROBLEM SET 6

DUE FEBRUARY 21

- (1) 1.5.4.
- (2) 1.5.7. Prove it using axioms (A1)-(A5), (M1)-(M4), (D) and (O1)-(O4).
- (3) 1.5.10. Prove it using axioms (A1)-(A5), (M1)-(M4), (D) and (O1)-(O4).
- (4) 1.6.21. You need to check that axioms (A1)-(A5), (M1)-(M4) and (D) from pages 10-11 are satisfied.
- (5) 3.1.5
- (6) 3.1.11
- (7) 3.1.14
- (8) Suppose that set $S \subseteq \mathbb{R}$ contains one of its upper bounds. Show that this upper bound is the supremum of S .