

Homework

due on Friday, February 25

Read carefully sections 5.1-5.2 in the book. Solve the following problems.

Problem 1. Let A, B, C be sets. Prove the following equalities:

a) $(A \cap B) \cup C = (A \cup C) \cap (B \cup C).$

b) $A \setminus (B \setminus C) = (A \setminus B) \cup (A \cap B \cap C).$

c) $(A \setminus B) \setminus C = A \setminus (B \cup C).$

d) $(A \div B) \div (A \cap B) = A \cup B.$