425A FALL 2020 PROBLEM SET #1

Problem 1. Pugh (2nd edition) chapter 1 problem 1.

Problem 2. Pugh (2nd edition) chapter 1 problem 2.

Problem 3. Pugh (2nd edition) chapter 1 problem 6.

Problem 4. Pugh (2nd edition) chapter 1 problem 8.

Problem 5. Show that in general $(A - B) \cup B \neq A$.

Problem 6. Given an example of a binary relation which is

(a) reflexive and symmetric, but not transitive
(b) reflexive, but neither symmetric nor transitive
(c) symmetric, but neither reflexive nor transitive
(d) transitive, but neither reflexive nor symmetric