CSE 2321: Homework 1 Solutions

1. a) True proposition.
   b) False proposition.
   c) Not a proposition.
   d) Not a proposition.
   e) True proposition.

2. a) Not a proposition.
   b) Not a proposition.
   c) False proposition.
   d) Not a proposition.

3. a) Today is not Thursday.
   b) There is pollution in New Jersey.
   c) $2 + 1 \neq 3$.
   d) The summer in Maine is not hot or is not sunny.

4. a) I did not buy a lottery ticket this week.
   b) I bought a lottery ticket this week or I won the million dollar jackpot on Friday.
   c) I bought a lottery ticket this week and I won the million dollar jackpot on Friday.

5. a) $P \wedge Q$
   b) $P \wedge \neg Q$
   c) $\neg P \wedge \neg Q$
   d) $P \vee Q$