

MATH 201 HW 3

due **Feb 4** before class. Staple all your papers. Write carefully, unreadable answers will not receive any credit.

Do the following exercises from Book of Proof:

- [2.6] 6,7,11
- [2.7] 3,7,9
- [2.9] 4,7
- [2.10] 2,6,10

And the following too:

1. Write $A \text{ xor } B$ in CNF and DNF form.

2. Convert to CNF and DNF the following formula.
 $(C \Rightarrow (D \Rightarrow E)) \vee [(C \Rightarrow E) \Rightarrow (D \Rightarrow E)]$

3. Convert to Prenex Normal Form
 $\neg((\forall y \forall x \neg P(x, y)) \Rightarrow (\exists w (Z(w) \Rightarrow W(w))))$.

If you forgot what is CNF, DNF and Prenex Normal Form, see lecture log or lecture notes.