

**MATH 300. INTRODUCTION TO
MATHEMATICAL REASONING.
FALL 2015.
WEEK 1 (LECTURE 1)
PROPOSITIONS AND CONNECTIVES**

1. Reading: Section 1.1.
2. Home assignment (Due Tue, September 8). Part 1(do not submit)
Sect.1.1: 1,2.
3. Home assignment (Due Tue, September 8). Part 2 (to submit).
Sect.1.1: 3(a,b,e), 5(d,g,i),6(a-e).
Extra problems: 1) Prove that if an even number is a square then it is a multiple of 4.
2)*Alice found herself in city A or city B, but in which one precisely, she doesn't know. She can ask one question only, which may be answered with a "yes" or a "no". Her respondent's answer may be either true or false, and Alice doesn't know which. Suggest a question whose answer would correctly tell Alice which city she is in.