

MATH 215
Homework Assignment 1
due January 15 2010

1. Read sections 1 and 2. Solve problems 1.2-5 and 2.1-6 from the text (check at the back, don't turn in).
2. To turn in:
 - (a) Construct a truth table for the following statement:
$$((\text{not } P) \text{ and } (\text{not } Q)) \text{ or } (P \text{ and } Q).$$
 - (b) Draw its Venn diagram.
 - (c) Express the statement of part (a) in a different but logically equivalent way. Construct the truth table for your statement.
 - (d) Prove that an integer n is even if and only if its square n^2 is even.