Math 215: Introduction to Advanced Mathematics
Problem Set 1

Due Friday September 6

Do pg. 53: 2

1) Construct the truth table for

$$((P \Rightarrow Q) \text{ and } (Q \Rightarrow R)) \Rightarrow (P \Rightarrow R).$$

[Note: There will be 8 possible truth assignments for P, Q, R]

2) Prove that $0 \leq |x|$ for all real numbers x.

3) Prove that $|x|^2 = |x^2|$ for all real numbers x.