

Math 215: Introduction to Advanced Mathematics
Problem Set 3

Due Friday September 22

Do pg. 54: 7, 11

1) a) Prove that $ab > 0$ if and only if

$$[(a > 0 \text{ and } b > 0) \text{ or } (a < 0 \text{ and } b < 0)].$$

b) Prove that $x^2 - x - 2 > 0$ if and only if $(x < -1 \text{ or } x > 2)$.