

## Math 215: Introduction to Advanced Mathematics

### Problem Set 6:

**Due Tuesday March 13**

1. Do pg. 117: 13. ii). Your proof should be in the form of showing every element of the left hand side is an element of the right hand side and vice versa.
2. Do pg. 117: 14.
3. Do pg. 117: 15.
4. Do pg. 117: 21.
5. A peculiar definition of the inverse tangent would define a function with domain  $\mathfrak{R}$  and codomain  $(\pi/2, 3\pi/2)$ . Write the definition of this function (assuming we know the function  $\tan$ ) and explain why it is 'an inverse' to the tangent.