

Math 536 Homework 7
Spring 2008
Due: Friday, March 7

1. Let R be the following subring of the complex numbers:

$$R = \left\{ a + b \frac{(1 + \sqrt{-19})}{2} : a, b \in \mathbb{Z} \right\}.$$

Show that R is a principal ideal domain that is not a Euclidean domain.

Prove this by following the steps in the attached handout.