

**Mathematics 3410 3.0**  
**Winter 2010**  
**Assignment 2**  
**Due Thursday, February 6, 2020**

Chapter 5: 1–7

Let  $w = f(z)$  be a function on a domain  $D$  such that the absolute value  $|f|$  of  $f$  is holomorphic on  $D$ . Prove that  $f$  is a constant function on  $D$ . (This is a stronger result than the one given in Chapter 5 (8). In what sense is it stronger?)

Chapter 6: 1–3