

# Quiz 7

Student ID Number:

Name \_\_\_\_\_

Math 140B, 5PM

Please justify all your answers

March 7, 2019

Please also write your full name on the back

1. Prove that

$$\frac{1}{2} \leq \int_0^1 \frac{2x}{\sqrt{x^{2019} + 2x + 1}} dx \leq 1.$$

2. True or False? Explain. If  $f^2$  is bounded and Riemann integrable on  $[a, b]$ , then  $f$  is Riemann integrable on  $[a, b]$ .