

Instructor: Tatsunari Watanabe  
TA: Carlos Salinas

Name: \_\_\_\_\_.

## MA 26500-215 Quiz 8

July 15, 2016

1. Let  $\ell^2(\mathbb{R})$  be the set of all sequences  $\{a_n\}$  whose sum of squares converges, i.e.,

$$\sum_{n=1}^{\infty} a_n^2 < \infty.$$

Show that  $\ell^2(\mathbb{R})$  is a vector space.

2.