# MATH 173 Problem Set 9

Stepan (Styopa) Zharkov

June 1, 2022

**Problem 1.**                                                                                             ◁

*Solution.*

**Problem 2.**

*Solution.*

1. We need $\int_0^1 |x^\alpha|^2 = \int_0^1 x^{2\alpha}$ to converge.

**Problem 3.** $\triangleleft$

*Solution.*

**Problem 4.**                                                                          ◁

*Solution.*

**Problem 5.** ◁

*Solution.*

5

**Problem 6.** ◁

*Solution.*

**Problem 7.** ◁

*Solution.*