

Combinatorial Topology Quiz 3 (2017 Fall)

Question 1. *Write your name, student ID number.*

Question 2. *Show that the Klein bottle is homeomorphic to $P^2 \# P^2$.*

Question 3. *Find a presentation for the fundamental group of $P^2 \# K$.*

Question 4. *Show that $P^2 \# K$ is homeomorphic to $P^2 \# T$.*