MATH 550B, HOMEWORK 5

FUNDAMENTAL GROUP OF THE CIRCLE AND FIXED POINT THEOREMS

Due by midnight, Thursday, 10/23

Reading. Read §55 of Munkres and Hatcher pages 29 to 34.

Problems (to turn in).

(1) Carefully show that the map $r : D^2 \to S^1$ defined in Theorem 1.9 of Hatcher is continuous.

(2) Munkres §55 exercise 1.

(3) Munkres §55 exercise 2.

(4) Hatcher page 39 exercise 12.