

Quiz 4

Student ID Number:

Name _____

Math 175, 12PM

Please justify all your answers

February 13, 2020

Please also write your full name on the back

1. True or false?

(a) A map from a finite set to itself can be surjective without being injective.

(b) $\binom{n}{k}$ is divisible by n .

2. 1500 teams are competing in a soccer tournament. The organizers let the teams know that every game must have a winner and that the team that loses a game is immediately excluded from the tournament. How many games will be played till the champion is known?