

MATH 513 HOMEWORK 9, SPRING 2019

DUE AT THE BEGINNING OF CLASS ON MONDAY, APRIL 29

One goal for this course is for you to develop your skill in effectively communicating mathematics. With this in mind, you should clearly write up your solutions. Solutions with little or no justification will receive little or no credit.

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- (1) Read through 5.3 and 6.1
- (2) My friend Leina used to let her cat out in the yard, tethered to a 15 foot leash that was nailed into the center of her lawn. Leina once spent 15 minutes watching the cat roam around on the leash. Was there ever a value t , $0 \leq t \leq 15$, for which, at exactly t minutes, the cat was exactly t feet from the center of the lawn? Prove your result.
- (3) Do 5.3 exercise 10.
- (4) Do 6.1 exercises 5, 6, and 7 a and b.