

# Statistics Homework 3

Mr. Grant

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Due Date: Wednesday, July 12th Turn in this homework by emailing me (SLGstats@uw.edu) an R file with these four functions in it. The file should be named [firstname]\_[lastname]\_hw3.R.

1. Write an R function for the mathematical function  $f(x) = 4x^2 + 3x + \sqrt{x} + \sin(x) + 7$ .
2. Write a function that takes in a vector and returns the first 5 elements of that vector, or the phrase “Vector too short!” if the vector has length less than 5.
3. Write a function that takes in a whole number  $n$  and returns the sum of all the positive odd numbers less than or equal to  $n$ .
4. Write a function that takes in three numbers and returns the “middle” number. That is, the function should take in inputs  $a$ ,  $b$ , and  $c$ , and return  $a$  if  $b \leq a \leq c$  or  $c \leq a \leq b$ , etc.