

Introduction to the R Statistical Computing Environment

Getting Started With R: Exercises

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ICPSR

2021

1. If you haven't already done so, install R and RStudio on your computer (instructions are on the lecture-series website) and verify that they work. Install the R packages used in the lecture series (again, instructions are on the lecture-series website).
2. * Write a function `MAD()` to compute the median absolute deviation from the median,

$$\text{MAD} = \text{median}[|x_i - \text{median}(x_i)|]$$

Confirm that your function works by comparing its results with those from the standard R `mad()` function, using, e.g., `MAD(1:100)` and `mad(100, constant=1)`. Then look at how `mad()` is programmed and compare it to your solution. In making the comparison to your function, be sure to set the argument `constant=1` in the call to `mad()` (see `?mad` for an explanation of the `constant` argument).

I'll provide answers for exercises marked with an asterisk ().