

Various exercises on programming with R

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Contents

Chapter 1

Prerequisites

These exercises assume you know about control flow tools such as `for`-loops and `if-else` statements. If you need more background on these topics, check out chapter 7 of (?) or check online for videos on these topics. For example, `for loops in R` on youtube results in a bunch of great videos. Also try to type along with the videos and try to change the examples up a bit by using different numbers or

```
# automatically create a bib database for R packages
knitr::write_bib(c(
  .packages(), 'bookdown', 'knitr', 'rmarkdown'
), 'packages.bib')
```


Chapter 2

Exercise 1: calculate sums and sum of squares

2.1 1.a: simple sums

Use a `for` loop to calculate the sum of the following vector of numbers. This is chiefly for the sake of practice as in reality we would use the `sum()` function for this:

```
my.list <- c(5,10,19,22,3,40,48)
```

2.2 1.b: sums of squares

Now modify the above code to also calculate both the sum and the sum of squares of squares, i.e., $5 \times 5 + 10 \times 10 + \dots + 48 \times 48$.