

# Practice Problems on Computing, Part 1

Write a script that solves the following problems. First of all, you need to have R and RStudio installed. You can install R from [here](#) and RStudio from [here](#).

1. Subtract 2 from 8.
2. Square 10.
3. Find the square root of 9.
4. Assign the value of  $8 - 2$  to the object `result`.
5. Multiply `result` times 4.
6. Assign the phrase (i.e., “character string”) `"political science"` to the object `course`. In the code, leave a comment that describes what happens if you fail to use quotes around `"political science"`.
7. Reassign the phrase `"learning R"` to the object `course`.
8. Assign the character string `"5"` to the object `x`.
9. Multiply `result` times `x`. In a comment, explain what happens. Does it make sense?
10. Assign the numbers 52.8, 53.3, 50.3, 55.2, 49.0, 55.7, 57.1, 54.9 as a vector to the object `turnout`. This is the percent turnout among the voting age population in presidential elections since 1980.
11. Use indexing to look at the fourth element of `turnout`.
12. Find the length of the vector `turnout`. Find the min, max, and mean.
13. Create a vector using the sequence function that does from 1980 to 2012 in increments of 4. Assign this vector to an object called `year`.
14. Let's briefly have a little fun and preview some of R's power. Use `plot(year, turnout)` to create a graph of turnout in U.S. presidential elections over time.
15. Replace the first value of `turnout` with a missing value.
16. Find the mean of the vector `turnout` (with the missing value). In a comment, explain the result. What does R return? Does that make sense?
17. Create a function that takes two inputs `x` and `p` and returns the value `x` raised to the `p` power. Assign this function to the object `power_up`.
18. Find the class of the objects `result`, `course`, `x`, `turnout`, `year`, `power_up`, and `mean`. Do these make sense?