```
# Introduction to R: Exercises

# 1. Basic Arithmetic Operations
# Perform the following calculations in R
2 + 3
10 - 5
4 * 6
20 / 4

# 2. Assigning Variables
# Assign the value 42 to a variable called my_number
my_number <- 42
print(my_number)

# 3. Data Types
# Create a numeric vector called numbers containing 4, 5, 2, 1, 3
numbers <- c(4, 5, 2, 1, 3)
print(numbers)

# Calculate the sum and length of this vector
sum(numbers)
length(numbers)

# Sort the vector
sort(vector)

# Create a character vector called fruits containing "apple", "banana", "cherry"
fruits <- c("apple", "banana", "cherry")
print(fruits)

# Access the first fruit
fruits[1]

# Access the third fruit
fruits[3]

# 4. Conditional Statements
# Write an if-else statement to check if a number is positive, negative, or zero
num <- -3
if (num > 0) {
  print("Positive number")
} else if (num < 0) {
  print("Negative number")
} else {
```

```
  print("Zero")
}

# 5. Loops
# Use a for-loop to print numbers from 1 to 5
for (i in 1:5) {
  print(i)
}

# 6. Functions
# Write a function that takes a number and returns its square
square_function <- function(x) {
  return(x^2)
}
print(square_function(4))

# Extra
# Create an R script that simulates rolling a die 10 times, stores the results in a vector, and then
sorts the results from smallest to largest. Hint: sample-function
```