

Chapter 2: Introduction to R and RStudio

Exercises

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15 May 2018

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EXERCISE I

Perform the following arithmetic and object creation in R.

1. $8+4$
2. $8-4$
3. $8/4$
4. $8*4$
5. Create an object named **a** composed of $8+4$
6. Create an object named **b** composed of $8-4$
7. Multiple **a** and **b**
8. Divide **a** by **b**

ANSWERS TO EXERCISE I

Question 1.1

```
8+4
```

```
[1] 12
```

Question 1.2

```
8-4
```

```
[1] 4
```

Question 1.3

```
8/4
```

```
[1] 2
```

Question 1.4

```
8*4
```

```
[1] 32
```

Question 1.5

```
a <- 8+4  
a
```

```
[1] 12
```

Question 1.6

```
b <- 8-4  
b
```

```
[1] 4
```

Question 1.7

```
a*b
```

```
[1] 48
```

Question 1.8

```
a/b
```

```
[1] 3
```

EXERCISE II

Perform the following in R.

1. Create a vector called `v1` composed of the numbers 3,4,5,6,7
2. Create a vector called `v2` composed of the numbers 23,14,18,16,21
3. Create a vector called `v3` that combines `v1` and `v2`
4. Create a data frame called `df1` from `v3`

ANSWERS FOR EXERCISE II

Question 2.1

```
v1 <- c(3,4,5,6,7)
v1
```

```
[1] 3 4 5 6 7
```

Question 2.2

```
v2 <- c(23,14,18,16,21)
v2
```

```
[1] 23 14 18 16 21
```

Question 2.3

```
v3 <- c(v1,v2)
v3
```

```
[1] 3 4 5 6 7 23 14 18 16 21
```

Question 2.4

```
df1 <- as.data.frame(v3)
df1
```

```
  v3
1  3
2  4
```

3 5
4 6
5 7
6 23
7 14
8 18
9 16
10 21