

Week 1 Exercises

Exercise 1 - Variables

a) Write an expression to compute the sum of the numbers 3 and 4

```
sum(3, 4)
```

```
## [1] 7
```

b) Write an expression to determine if the product of 4 and 5 is equal to 21

```
prod(4, 5) == 21
```

```
## [1] FALSE
```

c) Create the variables x, y, z with values (respectively) 2, 3.5, 7

```
x <- 2
```

```
y <- 3.5
```

```
z <- 7
```

d) Exploit a function of R to investigate the datatype of the three variables x, y, z

```
typeof(x)
```

```
## [1] "double"
```

```
typeof(y)
```

```
## [1] "double"
```

```
typeof(z)
```

```
## [1] "double"
```

e) Write an expression to compute the multiplication of the three variables x, y, z

```
prod(x, y, z)
```

```
## [1] 49
```

f) Write a Boolean expression (i.e., which result is T or F) which checks if the product of x, y, z is equal to 49

```
prod(x, y, z) == 49
```

```
## [1] TRUE
```

g) Create a variable s with value “Alexander”

```
s <- "Alexander"
```

h) Look for a function returning the length of a string and use it to determine the length of s

```
nchar(s)
```

```
## [1] 9
```