COMP2501A Lab 1 Exercise 1

1. What is the statement to help you to show the help manual of log function? log(x=_, base=_)
2. What is the output of the following statement?

```
log(1)      [1] 0
```

3. Consider the following statement:

```
a <- 2501L  typeof(a)  [1] "integer"        b<- 2501 typeof(b)  [1]"double"
```

What is the data type of a?

4. What is the result of the following statement?

```
seq(1, 5, 0.5)      [1] 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0
```

5. Write code in R to compute the sum of the integers from 1 through 10. sum(seq(1,10)) sum(1:10)
6. What is the output of the following statements?

```
m <- c(6, 3, 4)                    sort(m, descending=TRUE)
sort(m)  #>[1] 3 4 6               #> [1] 6 5 4
```

7. What is the output of the following statements?

```
country <- c("hong kong", "france", "japan")
country[[2]]                       diff???
```

8. What is the output of the following statements?

```
n <- 1000
x  <- seq(1, n)
sum(x)                             500500
```

9. What is the output of the following statements?

```
x <- c(1,2,-3,4)                   [1] "not all positive"
ifelse(all(x>0), "all positives", "not all positives")
```

10. What is the output of the following statement?

```
sapply(1:4, log2)      [1] 0.000000 1.000000 1.584963 2.000000
```