

Exercise 1

Using the following variables:

```
x=1  
i=c(1:10)
```

For this exercise, write a for() loop that increments x by two for each i.

Exercise 2

Using the following variables:

```
x=1  
y=40  
i=c(1:10)
```

For this exercise, write a for() loop that increments x by three and decrease y by two, for each i.

Exercise 3

Using the following variables:

```
a, b
```

For this exercise, write a nested for() loop (where the outer for loop increment a from 2 to 8 by 1, and the inner for loop increment b from 1 to 6 by 1) that print "a, ' less than ' ,b" if a<b.

Exercise 4

Using the following variable:

```
x=c(2,4)
```

For this exercise, type a while () loop that adds even numbers to x, while the length of x is less than 12.

For example, in the first iteration you get `x = 2,4,6` , and the third `x =2,4,6,8` .

Exercise 5

Using the following variable:

```
a=15:10  
b=20:15
```

For this exercise, type a while () loop that computes a vector `x=225 224 221 216 209 200`, such that

```
x[1]=a[1]*b[6]
x[2]=a[2]*b[5]
x[3]=a[3]*b[5]
.
.
x[6]=a[6]*b[1]
```

Exercise 6

Using the following variable:

```
a=1:10
```

For this exercise, type a while () loop that computes a vector `x=1 3 6 10 15 21 28 36 45 55`, such that

```
x[1]=a[1]
x[2]=a[1]+a[2]
x[3]=a[1]+a[2]+a[3]
.
.
```

Exercise 7

Using the following variable:

```
i=10
x=10
```

For this exercise, type a repeat () loop that decreasing i computes `x=x/i` until `i=0`.

Exercise 8

Using the following variable:

```
x=100
y=50
i=1
```

For this exercise, type a repeat () loop that incrementing i computes `x=x-i` and `y=y+i` until `x<y`.

Exercise 9

Using the following variable:

```
x=as.Date("10/11/2017", "%d/%m/%Y")
```

For this exercise, type a repeat () loop that increment x until x is equal to 31/12/2017.

Exercise 10

Using the following variable:

```
x=cbind(c(1,2,3,4,9,7,4,3),c(3,1,2,5,3,6,5,3))
```

For this exercise, type a for() loop that calculate `y=3 8 18 44 126 140 100 84` , such that

```
y[1]=x[1,1]*x[1,2]
y[2]=x[2,1]*sum(x[1:2,2])
y[3]=x[3,1]*sum(x[1:3,2])
.
.
.
y[8]=x[8,1]*sum(x[1:8,2])
```