CDS501 Lab 1

In [1]:
```
phrase <- c("I", "don't", "know", "I", "know")
```

In [2]:
```
phrase[1:3] #first three words
```

'I' 'don\'t' 'know'

In [3]:
```
phrase[3:5] # last three words
```

'know' 'I' 'know'

1. What is *phrase[-2]* ? What is *phrase[-5]*? Given those answers, explain what *phrase [-1:-3]* does

In [4]:
```
phrase[-2]
```

'I' 'know' 'I' 'know'

In [5]:
```
phrase[-5]
```

'I' 'don\'t' 'know' 'I'

answer: from above example we can see that in R, negative indices drops particular elements rather than retaining it. So, `phrase[-2]` instructs the machine to drop the second element of the column `"don't"` while `phrase[-5]` specifies dropping the 5th column `"know"`

2. Use indexing of phrase to create a new character vector that forms the phrase "*I know I dont*"

answer :

In [6]:
```
new_phrase <- c(phrase[-1:-3], phrase[-3:-5])
```

In [7]:
```
new_phrase
```

'I' 'know' 'I' 'don\'t'

3. Use sum to calculate the summation from 1 to 5

answer:

In [8]:
```
sum(1:5)
```

15

4. Use sum to calculate the summation from 1 to 10,000

answer:

In [9]:
```
sum(1:10000)
```

50005000

5. What does seq do?

answer: the `seq()` function generates a sequence of numbers

In [10]:
```
# example for seq()
a <- seq(3, 9) # generate number from 3 to 9
a
```

3 4 5 6 7 8 9

In [11]:
```
# another example
b <- seq(-12, 12) #generate number from -12 to 12
b
```

-12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10
11 12