# Lab Assignment-3

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Subject: Data Science Fundamentals

Q1. Create two vectors as A = (23, 34 ,56,3 ,0, 0 ) and B=("c", "b", "a")
CODE:

```
2   A<-c(23,34,56,3,0,0)
3   B<-c("c","b","a")
```

OUTPUT:

```
> print(A)
[1] 23 34 56  3  0  0
> print(B)
[1] "c" "b" "a"
```

Q2. Generate the sequences as 1:n, m:n and by a difference of 0.6.
CODE:

```
6   n=as.integer(readline("Enter the value of n:"))
7   m=as.integer(readline("Enter the value of m:"))
8   print(seq(from=1, to=n, by=0.6))
9   print(seq(from=m, to=n, by=0.6))
```

OUTPUT:

```
Enter the value of n:4
Enter the value of m:2
[1] 1.0 1.6 2.2 2.8 3.4 4.0
[1] 2.0 2.6 3.2 3.8
```

Q3. Divide the range 1 to 50 in 10 equal intervals.
CODE:

```
12   x<-1:50
13   pretty(x, n=10)
```

OUTPUT:

```
[1]  0  5 10 15 20 25 30 35 40 45 50
```

Q4. Print the pattern 3, 4, 5 five times.
CODE:

```
16   for (i in 1:5)
17 ▾ {
18     print("3,4,5")
19 ▴ }
```

OUTPUT:

```
[1] "3,4,5"
[1] "3,4,5"
[1] "3,4,5"
[1] "3,4,5"
[1] "3,4,5"
```

Q5. Generate 8 random numbers.
CODE:

```
22   p<-rnorm(8)
23   print(p)
```

OUTPUT:

```
> source("~/.active-rstudio-document")
[1] -1.3275950  0.1824448  0.2416145  2.0118909  1.4382649 -0.1577811 -0.9891099
[8] -1.4411014
```

Q6. Create a vector as C=(2, 3, 4, 5, 6, 7) and add it to vector A in question 1.
CODE:

```
26   C<-c(2,3,4,5,6,7)
27   print(A+C)
```

OUTPUT:

```
[1] 25 37 60  8  6  7
```

Q7. Add D= (6, 7) to A.
CODE:

```
30   D<-c(6,7)
31   print(A+D)
```

OUTPUT:

```
[1] 29 41 62 10  6  7
```

Q8. Write a statement to find the square root of each number in C.
CODE:

```
34   o<-sqrt(C)
35   print(o)
```

OUTPUT:

```
> source("~/.active-rstudio-document")
[1] 1.414214 1.732051 2.000000 2.236068 2.449490 2.645751
```

Q9. Find the length of A, B, C above.
CODE:

```
38   length(A)
39   length(B)
40   length(C)
```

OUTPUT:

```
> length(A)
[1] 6
> length(B)
[1] 3
> length(C)
[1] 6
```