1 Consider two vectors, x, y x=c(4,6,5,7,10,9,4,15) y=c(0,10,1,8,2,3,4,1) What is the value of:

x*y

2Consider two vectors, a, b

a=c (1,2,4,5,6) b=c(3,2,4,1,9) What is the value of: cbind(a,b)

CODE A:

```
> x<-c(4,6,5,7,10,9,4,15)
> y<-c(0,10,1,8,2,3,4,1)
> print(x*y)
[1]  0 60  5 56 20 27 16 15
```

CODE B:

```
> a <- c(1,2,4,5,6)
> b <- c(3,2,4,1,9)
> cbind(a,b)
     a b
[1,] 1 3
[2,] 2 2
[3,] 4 4
[4,] 5 1
[5,] 6 9
```

2) Vector v is c(1,2,3,4) and list x is list(5:8), what is the output of v*x[1]?

CODE:

```
> v<-c(1,2,3,4)
> print(v)
[1] 1 2 3 4
> x<-list(5:8)
> print(v*x[1])
```

3)Vector v is c(1,2,3,4) and list x is list(5:8), what is the output of v*x[[1]]

CODE:

```
> v<-c(1,2,3,4)
```

```
> print(v)
[1] 1 2 3 4

> x<-list(5:8)
> print(v*x[[1]])
[1]  5 12 21 32
```

4. X is the vector c(5,9.2,3,8.51,NA), What is the output of mean(x)?

CODE:

```
> x<-c(5,9.2,3,8.51,NA)
> print(mean(x))
[1] NA
```

5. Give a function in R that replaces all missing values of a vector x with the sum of elements of that vector?

CODE:

```
> function(x) { x[is.na(x)] <- sum(x, na.rm = TRUE); x }
function(x) { x[is.na(x)] <- sum(x, na.rm = TRUE); x }
```