

## Exercise 4

### Questions

1. Write a function to find the standard deviation of a matrix, using apply function

2. Initialize your plot :

```
plot(1:10,1:10,type="n")
  for(i in 1:10){
    lines(c(i,i),c(1,20))
  }
  for(j in 1:20){
    lines(c(1,10),c(j,j))
  }
```

3. Observe the output:

```
plot(1:10,1:10)
  for(i in 1:10){
    for(j in 1:20){
      points(i,j)
    }
  }
```

4. Observe the output:

```
plot(1:10,1:10)
  for(j in 1:20){
    color <- if( j %% 2 ==0 ){ "blue" } else { "red" }
    lines( c(1,10), c(j,j), col=color )
  }
```

5. Can you make line color alternate between "red", "blue", and "green"?