1.Count vowels

```
import java.util.Scanner
Scanner sc = new Scanner(System.in)
def s = sc.nextLine()
def vowels = ['a', 'e', 'i', 'o', 'u']
def found = []
s.each { ch ->
   if (vowels.contains(ch.toLowerCase())) {
      found << ch
   }
}
println "Number of vowels: ${found.size()}"
```

2.Reverse String

```
def sc = new Scanner(System.in)
def str = sc.nextLine()
def reversed = ""

for (int i = str.length() - 1; i >= 0; i--) {
        reversed += str.charAt(i)
}
println "Reversed string: $reversed"
```

3.Prime number

```
def sc = new Scanner(System.in)
def num = sc.nextInt()
boolean isPrime = num > 1
for (int i = 2; i <= Math.sqrt(num); i++) {
        if (num % i == 0) {
                isPrime = false
                break
        }println "Is prime: $isPrime"
```

4.Remove duplicates

```
def sc = new Scanner(System.in)
def inputList = sc.nextLine().split(" ").collect { it as Integer }
def noDuplicates = inputList.unique()
println "List after removing duplicates: $noDuplicates"
```

5.common elements

```
def sc = new Scanner(System.in)
def list1 = sc.nextLine().split(" ").collect { it as Integer }
def list2 = sc.nextLine().split(" ").collect { it as Integer }
def common = list1.intersect(list2)
println "Common elements: $common"
```

6.Anagrams

```
def sc = new Scanner(System.in)
def str1 = sc.nextLine().toLowerCase().toList().sort()
def str2 = sc.nextLine().toLowerCase().toList().sort()
println "Are anagrams: ${str1 == str2}"
```

7.Fibonaaci series

```
def sc = new Scanner(System.in)
def n = sc.nextInt()
def a = 0, b = 1
print "Fibonacci series: "
for (int i = 0; i < n; i++) {
        print "$a "
        def temp = a + b
        a = b
        b = temp
}
println ""
```

8.Palindrome

```
def sc = new Scanner(System.in)
def palinStr = sc.nextLine()
def isPalindrome = true
for (int i = 0; i < palinStr.length() / 2; i++) {
        if (palinStr[i] != palinStr[palinStr.length() - 1 - i]) {
                isPalindrome = false
                break
        }
}
println "Is palindrome: $isPalindrome"
```