# Lab5

**Modify your function from the Problem 2 (Lab5 Activity). The function should simulate N rounds of the game (instead of just one) and return the proportion of times you win the bet. Run the function with N = 1000 and 10000.**

```
gambling <- function(n){
  count <- 0
  for (i in 1:n) {
  x <- replicate(4, sample(1:6, size = 1, replace = T))
  count <- count + ifelse(sum(x == 4) >= 1,1,0)
  }
  return(count/n)
}
gambling(1000)
```

```
## [1] 0.52
```

```
gambling(10000)
```

```
## [1] 0.523
```

**2. Write a function that will find the smallest element of a given vector (built-in min() is not allowed). Your function should return the smallest element and index of the smallest element. Ex. vector is (1, 4, 2, 0, 5), then the smallest element - 0 and index is 4.**

```
find_min <- function(vec){
  min <- vec[1]
  for (i in 1:length(vec)){
  if(vec[i] < min)
    min <- vec[i]
  }
  return(min)
}

vec <- c(1, 2, 7, 10, 0, -3, 2.4)
find_min(vec)
```

```
## [1] -3
```