Practice 1 Unit 1

Test the Law Of Large Numbers for N random normally distributed numbers with mean = 0, stdev=1:

Create an R script that will count how many of these numbers fall between -1 and 1 and divide by the total quantity of N

You know that E(X) = 68.2% Check that Mean(Xn)->E(X) as you rerun your script while increasing N

Hint:

1. Initialize sample size
2. Initialize counter
3. loop for(i in rnorm(size))
4. Check if the iterated variable falls
5. Increase counter if the condition is true
6. return a result <- counter / N

1. Initialize sample size

```
sample = 1000
```

2. Initialize counter

```
counter = 1
```

3. loop for(i in rnorm(size))

```
for(i in rnorm(sample))
{

}
```

4. Check if the iterated variable falls

```
if(i >= -1 & i <= 1)
{

}
```

5. Increase counter if the condition is true

```
counter = counter + 1
```

6. return a result <- counter / N

```
result = ((counter/sample)*100)
```