STAT 8416 Homework 1

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```
getSquare <- function(x) {
  if (x > 100) {
    return("Big number")
  } else {
    return(x^2)
  }
}

getSquare(5)
```

```
## [1] 25
```

```
getSquare(500)
```

```
## [1] "Big number"
```

```
getSquare <- function(x) {

  z <- lapply(x, function(y) {
    if (y > 100) {
      return("Big number")
    } else {
      return(y^2)
    }
  })
  return(z)
  # TODO: Get this unlisted and keep numerics numeric

}

getSquare(5)
```

```
## [[1]]
## [1] 25
```

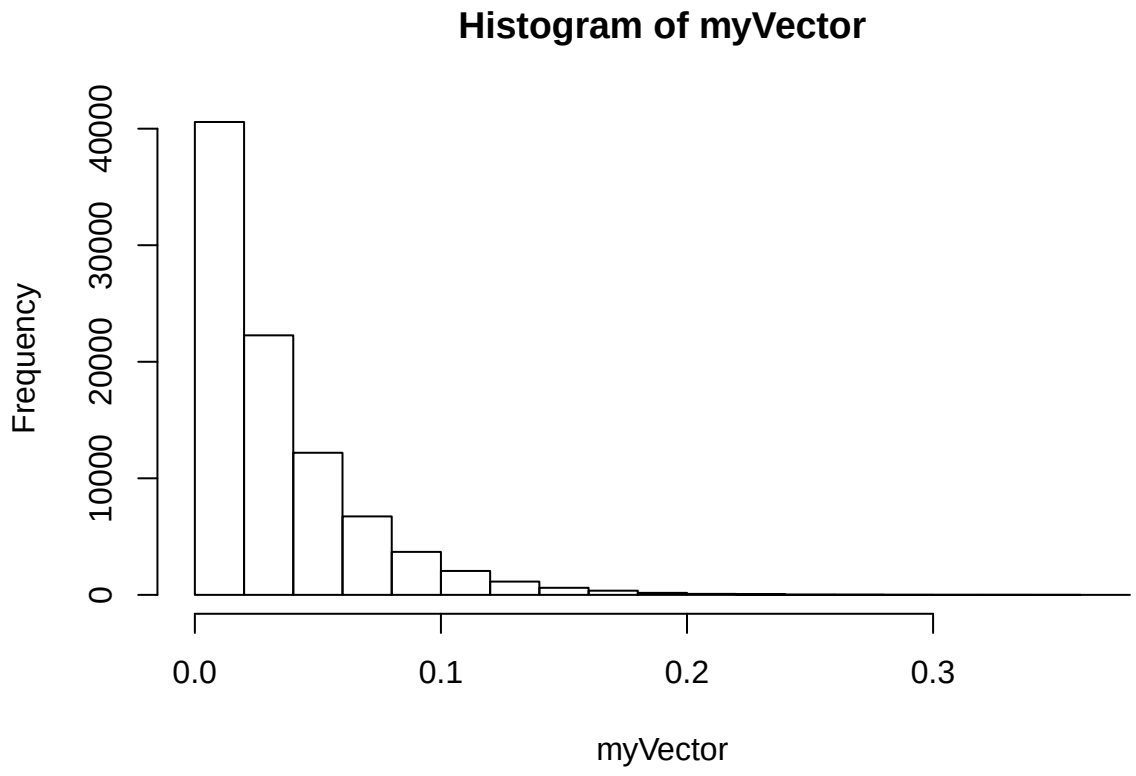
```
getSquare(500)
```

```
## [[1]]
## [1] "Big number"
```

```
x <- c(25, 200)
getSquare(x)
```

```
## [[1]]
## [1] 625
##
## [[2]]
## [1] "Big number"
```

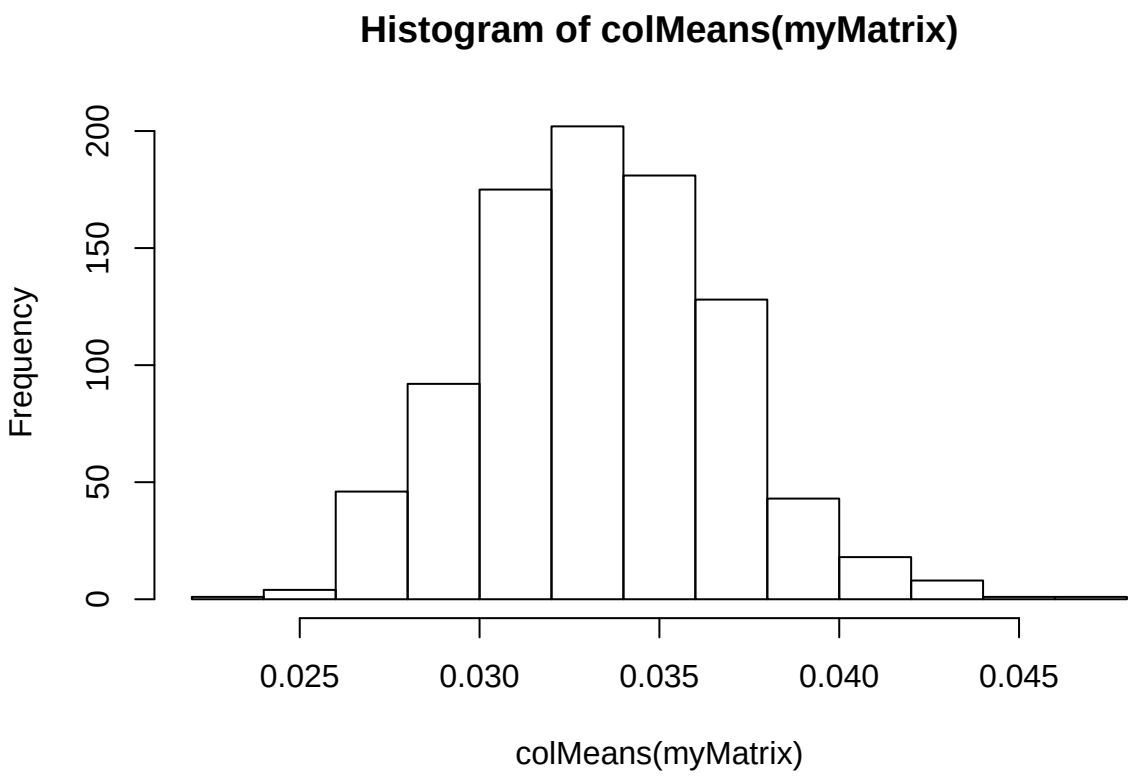
```
myVector <- rexp(90000, r=30)
hist(myVector)
```




```
myMatrix <- matrix(myVector, ncol=900)
dim(myMatrix)
```

```
## [1] 100 900
```

```
hist(colMeans(myMatrix))
```


Histogram of colMeans(myMatrix)
Frequency
0
50
100
150
200
0.025
0.030
0.035
0.040
0.045
colMeans(myMatrix)