

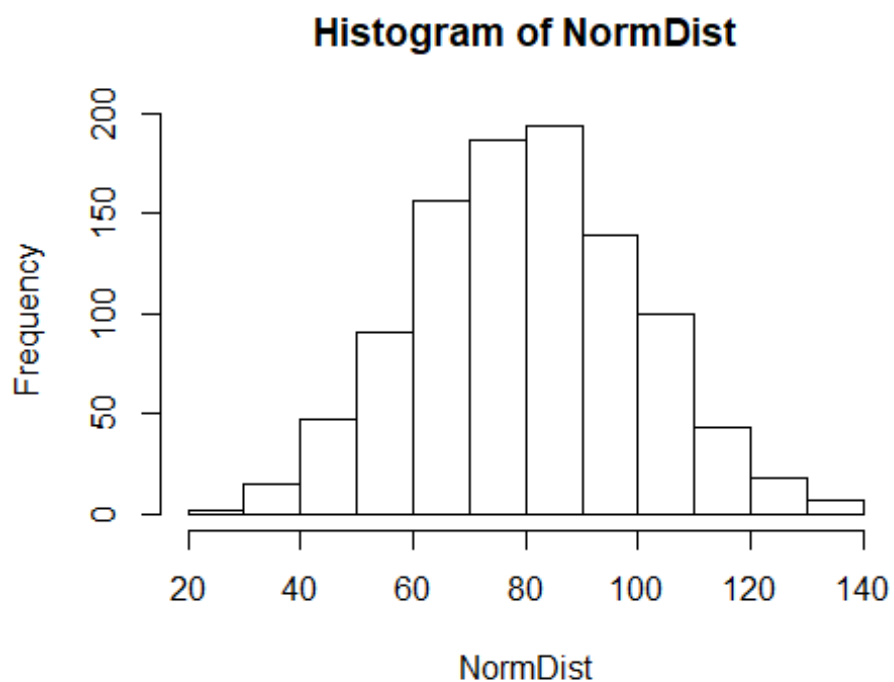
## HW3.R

xboxv

2020-02-22

### # Task 1

```
NormDist <- rnorm(1000, 80, 20)
hist(NormDist)
```



```
ThreeVars<-function(NormDist,newmin,newmax){
  return(sum(NormDist>=newmin & NormDist<=newmax))
}
```

```
ThreeVars(NormDist,79,81)
```

```
## [1] 42
```

```
head(rnorm(1000,80,20))
```

```
## [1] 135.70521 74.89099 97.63378 98.92850 67.17990 101.49877
```

```
head(rnorm(1000,80,20))
```

```
## [1] 60.75142 88.26959 66.26173 96.20492 113.61241 97.01310
```

```
head(rnorm(1000,80,20))
```

```
## [1] 103.07058 32.41525 77.16125 64.31706 54.30445 82.67795
```

```
head(rnorm(1000,80,20))
```

```
## [1] 91.51407 108.14828 83.89469 76.00006 71.56867 79.44112
```

```
# Task 2
```

```
library('VGAM')
```

```
## Loading required package: stats4
```

```
## Loading required package: splines
```

```
FSApops<-rgpd(51)
```

```
FSApops
```

```
## [1] 0.03476938 0.41990813 0.27038553 0.46871819 0.03541362 1.17981317
```

```
## [7] 0.46485347 1.15389652 0.72859405 2.66905146 0.60068624 1.13512788
```

```
## [13] 0.08654080 0.29728693 3.34332058 0.37378918 1.80861299 0.39861966
```

```
## [19] 0.88290072 2.48881931 0.85833542 1.71196049 0.78076965 0.01807066
```

```
## [25] 0.10130744 0.22045355 0.09162415 0.43456509 0.11607661 0.35678898
```

```
## [31] 0.09245658 0.19561375 0.66721580 0.52461297 0.30262404 0.16280998
```

```
## [37] 0.63609113 0.53927981 0.18177866 0.59357877 0.77589487 1.54808487
```

```
## [43] 1.41239043 1.19027878 0.07940714 2.31508577 1.59274677 0.81347237
```

```
## [49] 0.27175261 2.29487262 0.70213625
```

```
FSApops<-rpareto(51,572381,1)
```

```
FSApops
```

```
## [1] 1307498.8 30890640.2 1857982.0 1030628.4 674230.0 627291.0
```

```
## [7] 572704.8 1047042.0 2546240.5 854455.9 1663103.7 11966953.0
```

```
## [13] 596828.4 656259.8 614061.5 733835.0 619304.2 9516284.5
```

```
## [19] 950153.6 7185009.7 864842.0 38645234.2 1646353.1 934063.3
```

```
## [25] 685108.1 1220856.6 950548.2 4438087.9 37286126.3 1058220.9
```

```
## [31] 1356956.3 711534.0 690931.2 2312437.2 787831.2 2655956.1
```

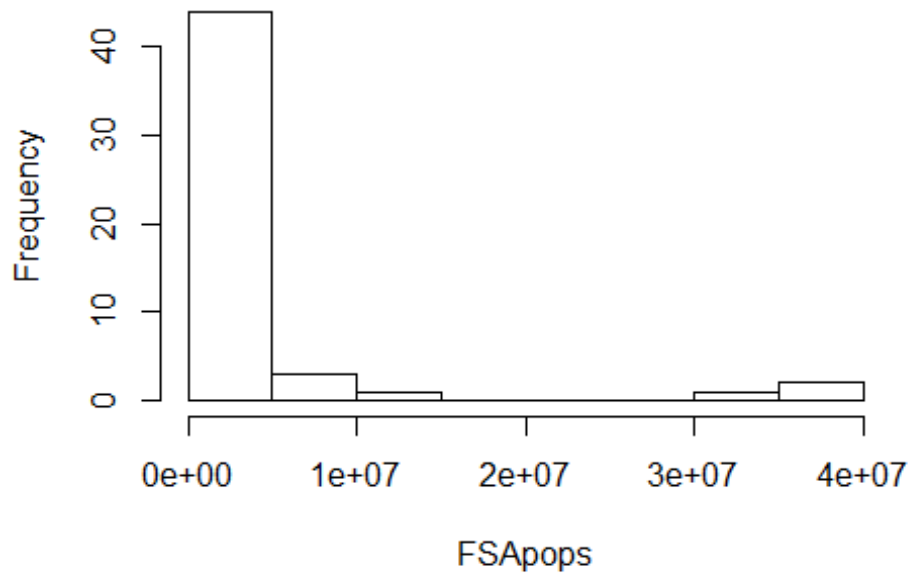
```
## [37] 1236229.2 1890366.9 1403079.8 717079.9 1206405.1 1965015.5
```

```
## [43] 1681890.3 9225471.0 3246146.0 1945203.0 687415.5 917975.3
```

```
## [49] 1141774.4 1355161.4 847080.4
```

```
hist(FSApops)
```

**Histogram of FSApops**



```
mean(FSApops)
## [1] 3953370
sd(FSApops)
## [1] 8380815
max(FSApops)
## [1] 38645234
min(FSApops)
## [1] 572704.8
```