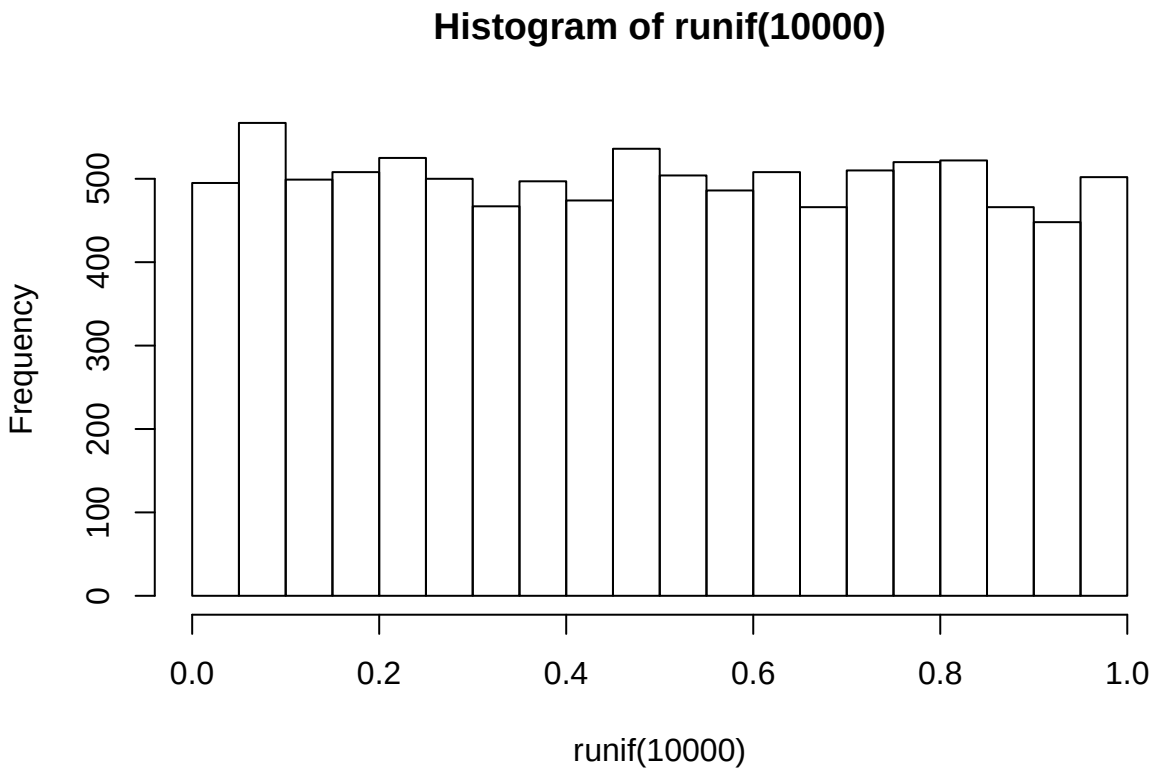
IST 772 Week 1 Distributions demo

```
library(MASS)
```

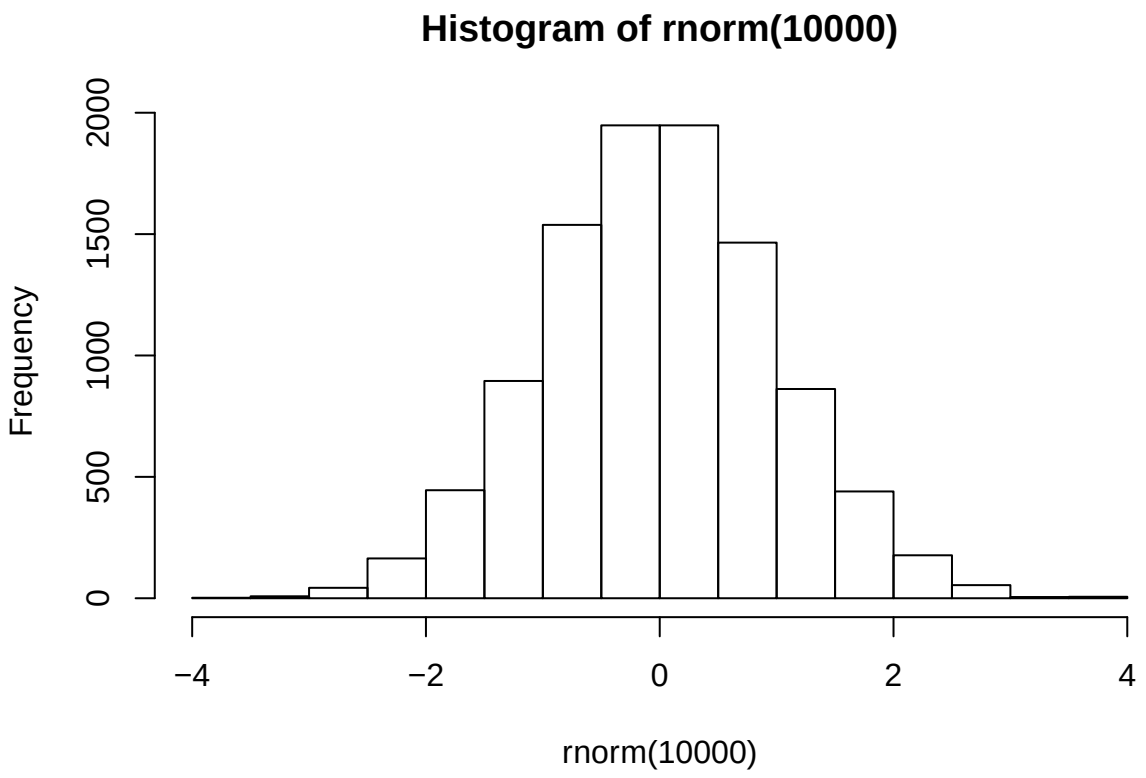
A uniform distribution

```
hist(runif(10000))
```

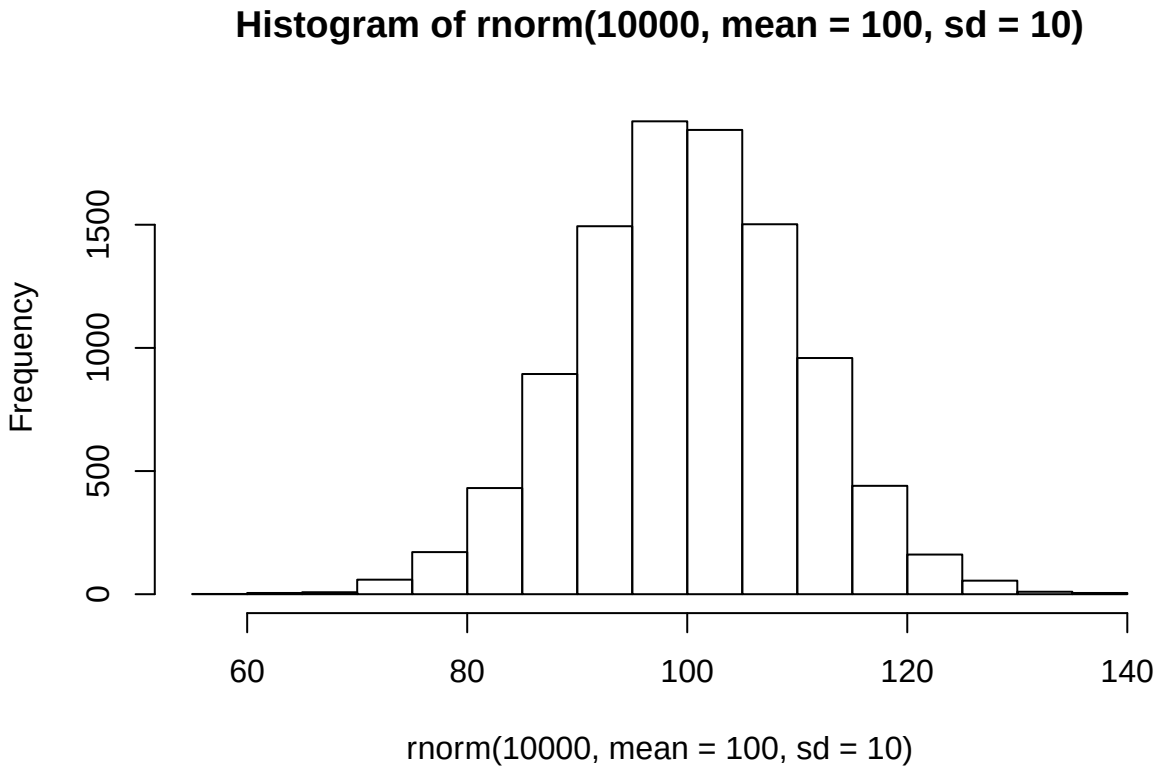


The normal distribution

```
hist(rnorm(10000))
```

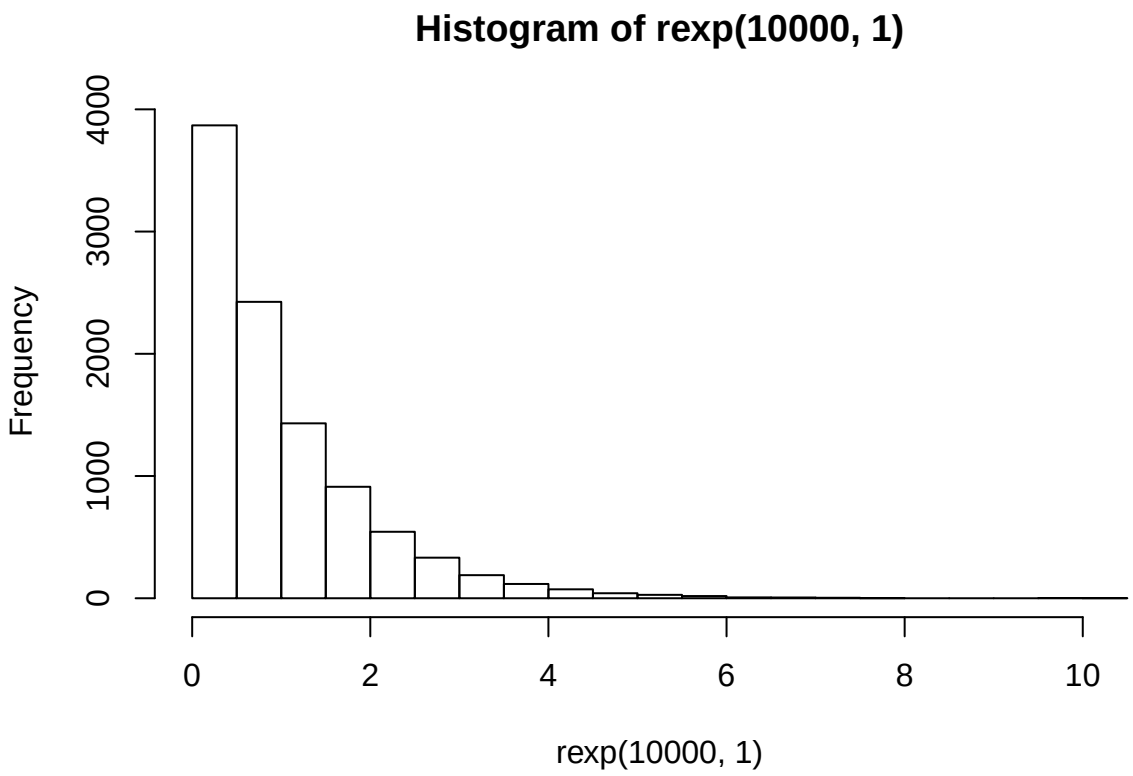



```
hist(rnorm(10000,mean=100,sd=10))
```



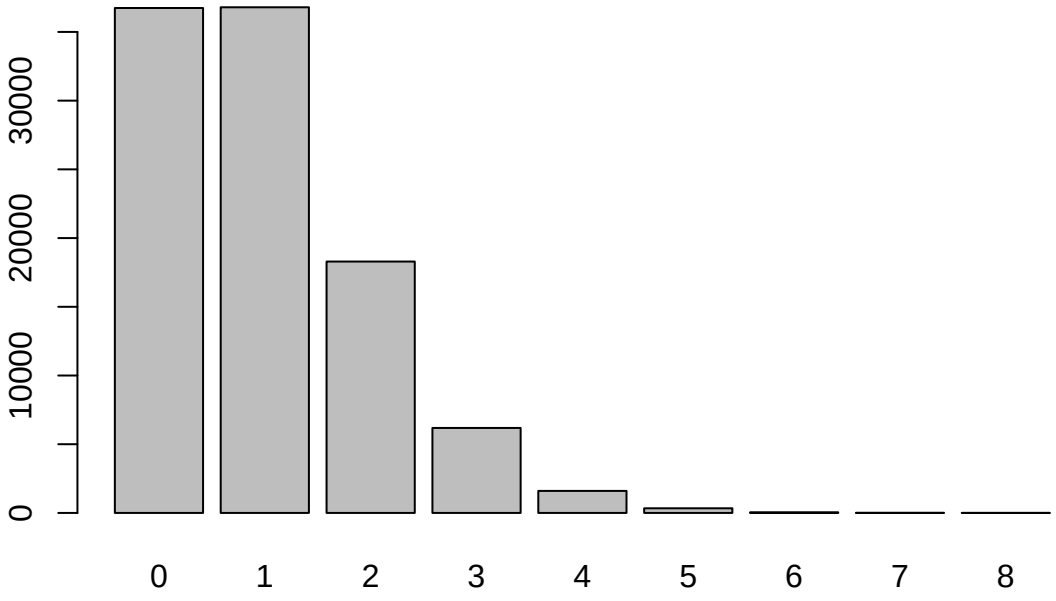
Waiting times have an exponential distribution

```
hist(rexp(10000, 1))
```



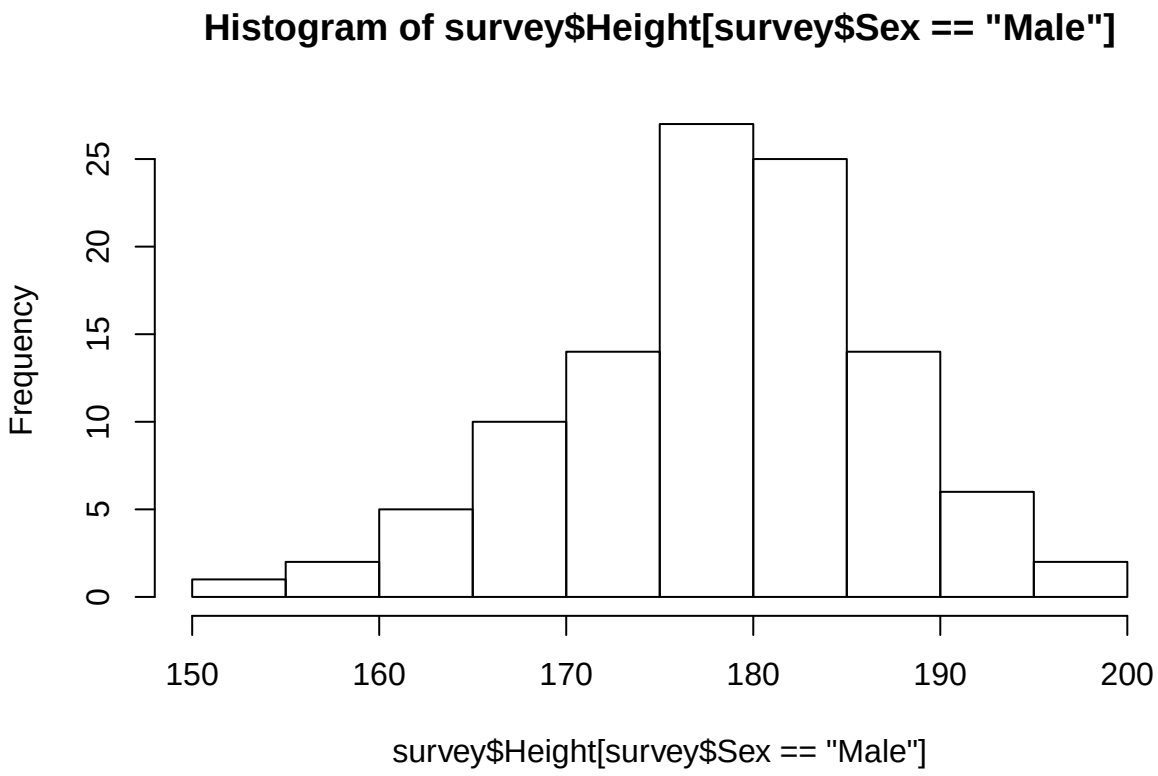
Number of arrivals in a period of time have a Poisson distribution

```
barplot(table(rpois(100000, 1)))
```



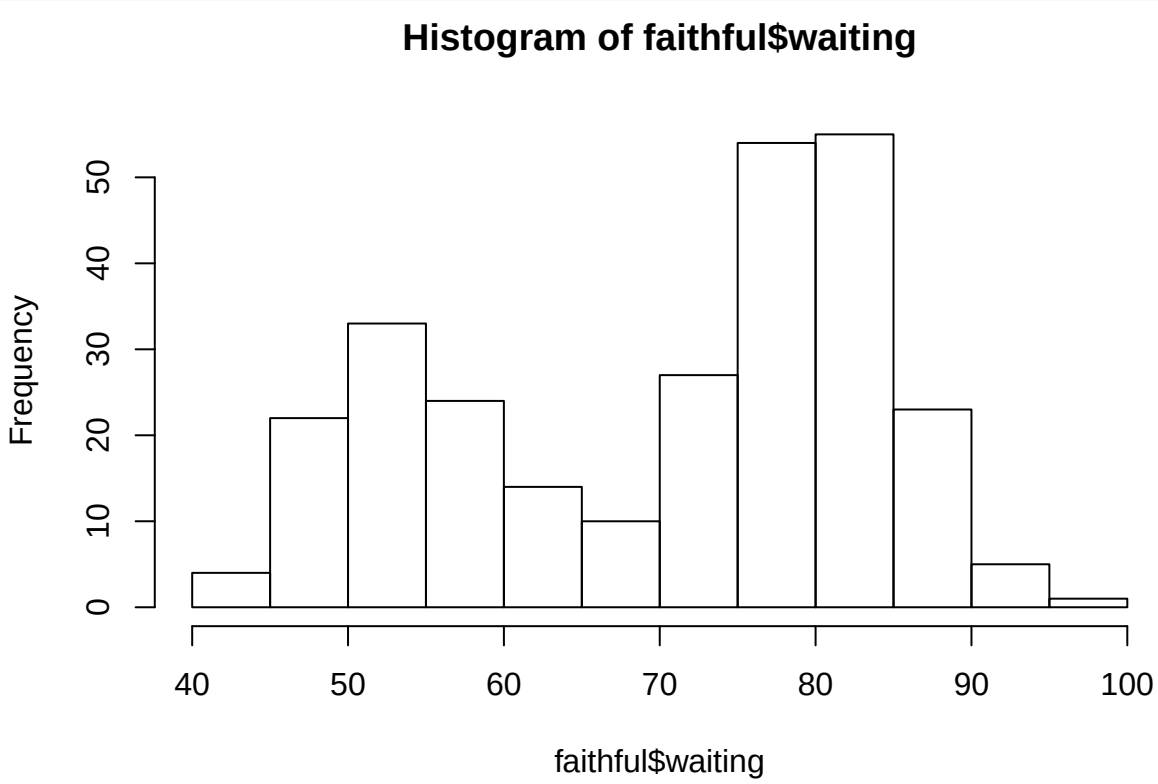
Heights of male students at University of Adelaide

```
hist(survey$Height[survey$Sex == "Male"])
```



Waiting time for eruptions of Old Faithful geyser

```
hist(faithful$waiting)
```



What's this distribution?

```r
hist(Orange$circumference)
```