

# Symbols and functions from today's session

## R (Simulations)

### Random seed

```
set.seed(5) #sets the random seed at 5
```

### Normal distribution

```
#this function draws x samples from a Normal distribution  
#with a mean of y and a standard deviation of z  
rnorm(n = x, mean = y, sd = z)
```

For example,

```
sample <- rnorm(n = 5, mean = 130, sd = 5)  
sample
```

```
## [1] 135.9859 124.9972 132.5475 132.1052 144.7216
```

### Bernoulli distribution (Binomial)

```
#this function draws x samples from a Binomial distribution  
#that can take (size+1) values (if size = 1, then it's a Bernoulli dist.),  
#with a probability of z  
rbinom(n = x, size = y, p = z)
```

For example,

```
sample <- rbinom(n = 5, size = 1, p = 0.5)  
sample #five fair coin flips (1 = heads; 0 = tails)
```

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

### Poisson distribution

```
#this function draws x samples from a Poisson distribution  
#with a rate of y  
rpois(n = x, lambda = y)
```

For example,

```
sample <- rpois(n = 5, lambda = 130)  
sample
```

```
## [1] 140 134 129 119 109
```