

assignment_stat.R

LENEVO

Thu Nov 02 23:56:23 2017

```
# Random Number Exercise 1
set.seed(1)
random_numbers<- runif(10)
random_numbers
```

```
## [1] 0.26550866 0.37212390 0.57285336 0.90820779 0.20168193 0.89838968
## [7] 0.94467527 0.66079779 0.62911404 0.06178627
```

```
#if else Exercise 2
ifelse(random_numbers>0.5,'Head','Tail')
```

```
## [1] "Tail" "Tail" "Head" "Head" "Tail" "Head" "Head" "Head" "Head" "Tail"
```

```
# Exercise 3
set.seed(1)
rbinom(1,10,0.3)
```

```
## [1] 2
```

```
#Exercise 4

set.seed(1)
die_roll<- runif(1,0,6)
ceilingnum<- ceiling(die_roll)
ceilingnum
```

```
## [1] 2
```

```
#Exercise 5
heights<-rnorm(100,1.7,0.1)

#Exercise 6
pnorm(1.9,1.7,0.1,lower.tail = FALSE)
```

```
## [1] 0.02275013
```

```
pnorm(1.6,1.7,0.1,lower.tail = TRUE)
```

```
## [1] 0.1586553
```

```
#Exercise 7
#Set seed as 1 for unifrom value
set.seed(1)
#Generating 30 random number
randomnumber<-runif(30,0,30)
roundingdicevalue<-ceiling(randomnumber)
roundingdicevalue
```

```
## [1] 8 12 18 28 7 27 29 20 19 2 7 6 21 12 24 15 22 30 12 24 29 7 20
## [24] 4 9 12 1 12 27 11
```

```
# Exercise 8
heights<- rnorm(100,1.70,0.1)
summary(heights)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##  1.501  1.651   1.706   1.712   1.770   1.940
```

```
#Exercise 9
x<- c(qnorm(.05, mean = 1.70, sd = .1),qnorm(.95, mean = 1.70, sd = .1))
x
```

```
## [1] 1.535515 1.864485
```

```
#Exercise 10
ppbig<- pnorm(1.60,1.70,0.1,lower.tail = TRUE)
percentage<-ppbig*100
percentage
```

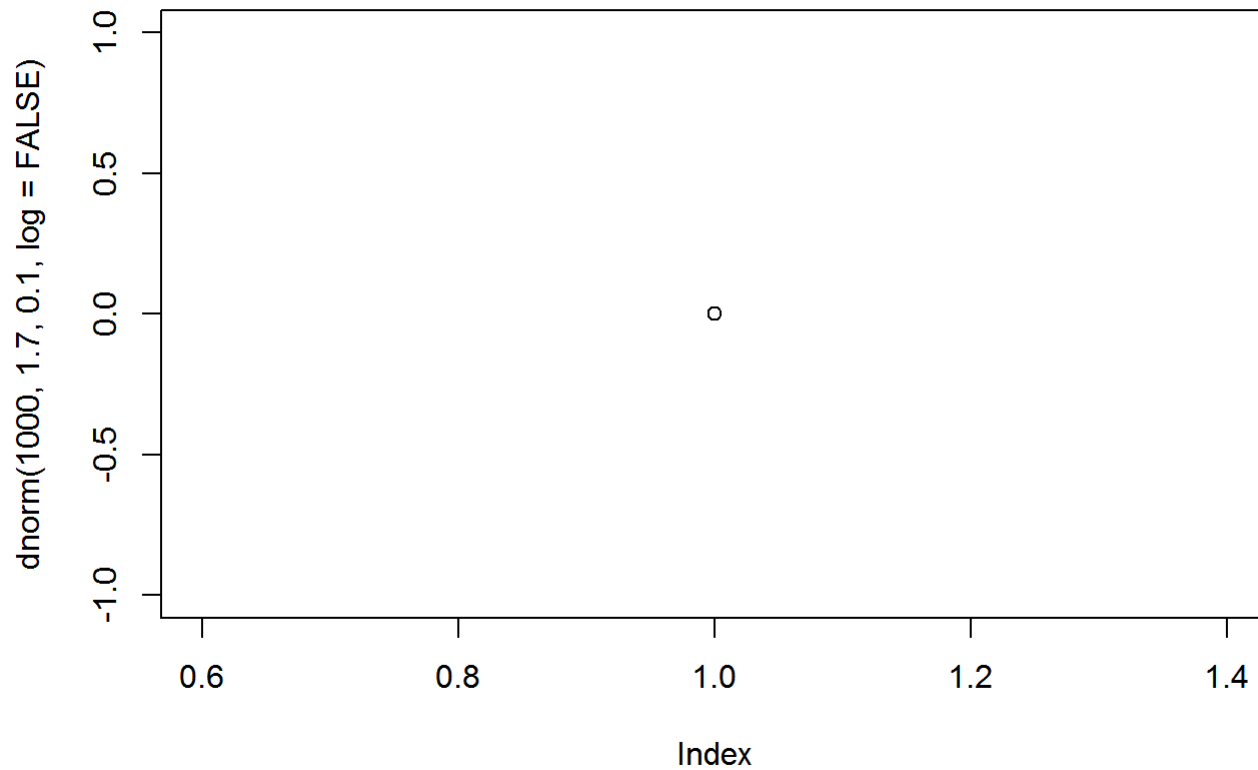
```
## [1] 15.86553
```

```
#Exercise 11

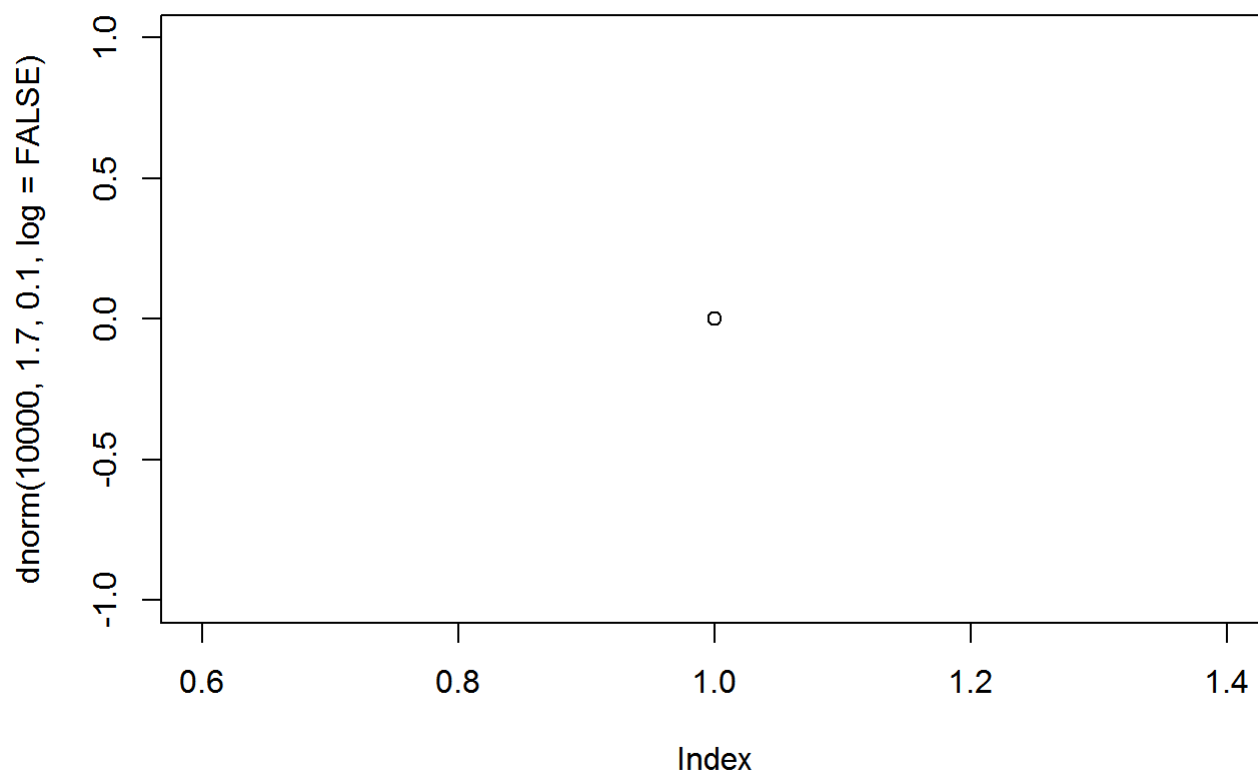
set.seed(1)
coin_tosses <- rbinom(n = 1000, prob = .48, size = 10)
mean(coin_tosses-5) * 10
```

```
## [1] -1.93
```

```
#Exercise 12
set.seed(1)
heights<-rnorm(1000,1.70,0.1)
#12 a
plot(dnorm(1000,1.70,0.1,log = FALSE))
```



```
#12 b
heights2 <- rnorm(n = 10000, mean = 1.70, sd = .1)
plot(dnorm(10000,1.70,0.1,log = FALSE))
```



```
#Exercise 13
```

```
c(qnorm(.05, mean = 1.70, sd = .1), qnorm(.95, mean = 1.70, sd = .1))
```

```
## [1] 1.535515 1.864485
```

```
#Exercise 14
```

```
runif(10,0,3)
```

```
## [1] 0.23713620 0.53593696 2.58236609 2.81856776 2.63713275 0.05152868
## [7] 1.84772791 0.47716424 0.86892929 2.21099664
```

```
#Exercise 15
```

```
pnorm(84,72,15.2,lower.tail = FALSE)
```

```
## [1] 0.2149176
```

```
#Exercise 16
```

```
?dbinom
```

```
## starting httpd help server ... done
```

```
dbinom(0, size=12, prob=0.2) +  
+ dbinom(1, size=12, prob=0.2) +  
+ dbinom(2, size=12, prob=0.2) +  
+ dbinom(3, size=12, prob=0.2) +  
+ dbinom(4, size=12, prob=0.2)
```

```
## [1] 0.9274445
```