

# R Notebook

```
pnorm(0.5)
## [1] 0.6914625
log(2)/87.7
## [1] 0.007903617
sqrt(0.7)
## [1] 0.83666
log(200)/4*20^2
## [1] 529.8317
(pnorm(-19.5/5)-pnorm(-20.5/5))*2^100
## [1] 3.478286e+25
dbinom(30,100,.5)*2^100
## [1] 2.937234e+25
pbinom(30,100,.5)
## [1] 3.92507e-05
qnorm(0.975)
## [1] 1.959964
#x = c(0.96, -0.34, 0.85, 0.51, -0.24)
x = c(8.47, 10.91, 10.87, 9.46, 10.40)
mean(x)
## [1] 10.022
sum((x-mean(x))^2)/4
## [1] 1.09377
var(x)
## [1] 1.09377
mean(x)-1.96*sd(x)/sqrt(5)
## [1] 9.105286
mean(x)+1.96*sd(x)/sqrt(5)
## [1] 10.93871
```

```
z=qt(0.975,4); z
```

```
## [1] 2.776445
```

```
mean(x)-z*sd(x)/sqrt(5)
```

```
## [1] 8.723425
```

```
mean(x)+z*sd(x)/sqrt(5)
```

```
## [1] 11.32058
```