

Johns Hopkins Engineering

625.464 Computational Statistics

A Few Comments on R Part 2

Module 1 Lecture 1C



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Reading in Data Files

```
v = scan(file.choose())
```

```
x = read.table("filename")
```

```
y = read.table("filename", header = T)
```

From excel save as CSV

```
z = read.csv("filename.csv")
```

```
read.table(file.choose())
```

```
summary(x)      x[i]    mean [x[i]]
```

Statistics with R

beta

binom

gamma

norm

hist(\hat{n})

gen r.v. $\hat{n} = rnorm(1000, 0, 1)$

eval the density $dnorm(.001, 0, 1)$

$pnorm \rightarrow CDF$

$qnorm \rightarrow quantiles$

Table of useful distributions

Distribution	R name	additional arguments
beta	beta	shape1, shape2, ncp
binomial	binom	size, prob
Cauchy	cauchy	location, scale
chi-squared	chisq	df, ncp
exponential	exp	rate
F	f	df1, df2, ncp
gamma	gamma	shape, scale
geometric	geom	prob
hypergeometric	hyper	m, n, k
log-normal	lnorm	meanlog, sdlog
logistic	logis	location, scale
negative binomial	nbinom	size, prob
normal	norm	mean, sd
Poisson	pois	lambda
Student's t	t	df, ncp
uniform	unif	min, max
Weibull	weibull	shape, scale
Wilcoxon	wilcox	m, n

Graphics in R

hist

```
f <- function(x) { x * sin(x) }
```

```
plot(f, -20 * pi, 20 * pi)
```

```
abline(0, 1)
```

↑ ↑
yint slope