

QUICK INTRODUCTION TO R

- Think of R as a free software facility for data manipulation, calculation, and graphical display (technically R is an expression language).
- Can run R on Unix machines, Windows, ...
For this course we use Unix machines.
- *Getting started* (on a Unix machine/X-terminal window): Type the command
R
(followed by Enter).
- *Getting help*: Read in manuals or use the help command. Example:
> help(solve)
or alternatively
> ?solve
- *To quit*: Type
> q()
(is asked if you want to save workspace image).

Demo 1

```
# Demo1 (this is how we write comments in R)
```

```
# We first simulate 10 normally distributed random  
# numbers (mean 0, variance 1)
```

```
 $x <-$  rnorm(10)
```

```
# Here x becomes a vector of length 10;  
# rnorm is a function (guess which);  
# and  $<-$  is an assignment  
# = could also be used for assignment but  
# using  $<-$  makes more clear what happens)
```

```
 $x$  # same function as print( $x$ )
```

```
 $m <-$  mean( $x$ )
```

```
#  $m$  is the average of the values in  $x$ 
```

```
 $m$ 
```

```
 $x - m$  # notice recycling  $s <-$  sd( $x$ );  $s$  # ; separates the  
two commands
```

How to learn R?

Best thing here:
learning by doing.....