

36-315: Statistical Graphics and Visualization

Handout 5

Date: January 29, 2003

Expression - Piece of code evaluated to produce a value. Values can have many *types*.

Argument - A value given to a function.

```
jitterplot(x,0.5)      (x and 0.5 are the arguments to jitterplot)
```

Command - Function which produces a side-effect.

Character string - Words and punctuation enclosed in quotes.

```
txt = "hello, there"   (makes txt a character string)
```

Vector - Sequence of numbers or character strings.

```
x = c(2,5,7)           (makes x a vector of numbers)
txt = c("hello","there") (makes txt a vector of strings)
```

Matrix - Two-dimensional array of numbers. Rows and columns can be named.

```
frame = read.csv("data.csv") (read a matrix from file)
frame[3,2]                    (number at row 3, column 2)
frame[,"PCI"]                (vector of all numbers at column "PCI")
```

List - Set of values, each of which can have any type. The elements can be named.

```
s = list(x,y)            (makes s a list containing x and y)
s[[1]]                  (first element of s, which is x)
s = list(low=x,high=y)  (makes a list with named elements)
s[["high"]]            (same as y)
```