

Matrix work in R

Reading in a matrix:

```
> m <- matrix(c(1,2,3,4,5,6),3,2)  ## creates a 3 row by 2 column matrix with 1 2 3 in the
## first column and 4 5 6 in the second
```

Matrix Multiplication:

Suppose matrix A is a 2 by 3 matrix and matrix B is a 3 by 5 matrix (both stored as matrices).

The 2 by 5 product matrix mmp is formed as indicated below.

```
> mmp <- A%*%B  ## performs matrix multiplication
```

Matrix inverse:

Suppose matrix A is a k by k nonsingular square matrix. The k by k inverse matrix which is the multiplicative inverse of A (call it iA) can be found as follows:

```
> iA <- solve(A)  ## finds the matrix inverse
```