

CS 100  
Fall 2015  
Lab #3

1. What is the result of the following code. First solve it with pen and paper and then check your answer using Octave/Matlab.

```
x = [ [1:3]'*[1:3] , 0*[[1:3];[1:3];[1:3]] ]
```

2. Create a 4x3 matrix M where each entry  $M(i,j)$  is  $i*j$ .

- Compute the transpose of M and assign it to a matrix called N. What are the dimensions of N?
- Compute  $M(3,:)$
- Compute  $N(:,3)$
- Compute  $M([1\ 4], [2\ 3])$
- Multiply M by the vector  $[4\ 1\ 5]'$  and assign the result to y. What is the size of y?

3. Let M be an  $m \times n$  matrix. Write a piece of code that replaces the lower right 2x2 portion of M by x where  $x = [10\ 20; 100\ 200]$ . For instance,

