Matlab day 4

Focusing on what we know:
Reading and Writing

Semester plans:
Stuff to do

• Project C due date is being pushed back to Thursday of this week at 6pm.
• Practical 2 will be assigned this Wednesday and due Tuesday the 19th by 6pm.
• HW 6 will be assigned Wednesday also, but will not be collected or graded.
  – So we will end up with 5 homework assignments total.
  – Strongly recommend doing it. Will help on the final.
  – Answers will be posted on Saturday.

Stuff to learn

• Today
  – Group work on Matlab
• Wednesday
  – Harder group work on Matlab (GSI's should be here to help)
• Friday
  – Wrap up Matlab – Genetic algorithm in Matlab
  – Course evaluations
• Monday
  – Class/final review.
• We will have a GSI review session before the exam.

Write

• Write a function named “odds” which takes a single number (N) as an argument and returns the sum of all odd numbers from 1 to N. So odds(6) should return 1+3+5 or 9.
Read

```matlab
clear;
A=1:10;
B=A.^2;
B;
C=fliplr(B);
C=C;
Y=[C 0 B];
X=-10:10;
plot(X,Y)
```

Write

• What would happen if we got rid of X and changed the plot command to “plot(Y)”?

Read

```matlab
function result=tmp2(N)  \% N is scalar
    total=d6(N)+d6(N);
    result=hist(total,11);
    result=result/N;

function rolls=d6(N)
    R1=rand(1,N)*6;
    rolls=ceil(R1);
```

Write

• Write a function which takes 3 arguments and returns three times the max value of those three arguments.

• Write a function “OneM” which takes a vector of integers. It is to return the smallest integer X where X\%A_n is equal to 1 for all values in the vector.
  – So OneM[2 3 4]=13
    • 13\%2 equals 1
    • 13\%3 equals 1
    • 13\%4 equals 1
  – In Matlab 13\%4 is written as mod(13,4)
function r=tmp3(N) %N is scalar
    count=1;
    num=3;
    array=[2]

    while(count<N)
        if(min(mod(num, array)~=0))
            array=[array num];
            count=count+1;
        end
        num=num+1;
    end
    r=array;