

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.

Semester plans: Stuff to learn

- Today
 - Group work on Matlab
- Wednesday
 - Harder group work on Matlab (GSIs 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

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

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

Write

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

Read

```
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 “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;
```