Group #:
Name:

EOSC 211 – Week 6 – Practice with loops (1)

Write MATLAB code to solve the following problems. Do not use any built-in functions (unless explicitly allowed).

EXERCISE 1: Use a loop to multiply together all the values in a row array `X`, which has `N` points. The final product goes into a variable `TOTAL`.

EXERCISE 2: Use a loop to find the maximum (largest) value in `X`, writing the result into a variable `LARGEST`.

EXERCISE 3: Use a loop to count the number of values in a vector `X` that appear before a 5. (i.e. if `X=[1 12 2.5 5 8 4 5]` we want an answer of `3`). Put this number into another variable `GETFIVE`.

EOSC 211 – Week 6 – Practice with loops (1)

EXERCISE 4: Consider an `MxN` matrix `A`. Use a double loop to form a new `1xN` matrix `ROWSUM`, the `k`th element of which contains the sum of elements in the `k`th column of `A`.

EXERCISE 5: Use `[pX,pY]=ginput(1)` to get a point, and continue getting points until `pX<0`. Store the `pX` values in another variable `SX`, where `SX(1)` is the first point chosen, `SX(2)` is the second element, and `SX(N)` is the last element.

EXERCISE 6: After this code runs, what is `x`? (Give the first 7 elements)

```
x=[0 1];
for k=3:100
    x(k)=x(k-1) + x(k-2);
end;
```