EGME 2050 Computational Methods
Spring 2022

Lab Week 5

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Submitted

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Problem 1: Section 16.6

```
function [scoreForYellow,message] = DartGame(yellow)

    %Assign scores based on number of darts in the yellow
    if yellow<=1
        scoreForYellow=0;
    elseif yellow==2
        scoreForYellow=10;
    elseif yellow<5
        scoreForYellow=20;
    elseif yellow<9
        scoreForYellow=50;
    else
        scoreForYellow=100;
    end

    %Assign money payout based on scores
    switch scoreForYellow
        case 100
            message="Congratulations, you get $100";
        case 50
            message="Congratulations, you get $50";
        case 20
            message="Congratulations, you get $10";
        case 10
            message="You did not win any money, but you get free ice cream!";
        case 0
            message="You did not win any money. Wish you better luck next time!";
    end
end
```

Problem 2: Section 17.8

```
function adjacentRepeat = HasAdjacentRepeat(inArray)
    i=1;
    for i=2:length(inArray) %For loop that finds length of array and counts through
        if  inArray(i-1) == inArray(i)%Tests for adjacent repeating characters
            adjacentRepeat=1;
            break %If it find matching characters, break finishes the program
        else
            adjacentRepeat=0; %If no match's are found, adjacentRepeat=0
        end
    end
end
```

Problem 3: Section 19.10

```
function newPassword = ModifyPassword ( simplePassword )

    %Replacing variables
    newPassword=strrep(simplePassword,"i","!");
    newPassword=strrep(newPassword,"a","@");
    newPassword=strrep(newPassword,"m","M");
    newPassword=strrep(newPassword,"b","8");
    newPassword=strrep(newPassword,"o",".");

    %Remove all whitespaces
    newPassword=erase(newPassword," ");

    %Add q*s to the end of newPassword
    newPassword=strcat(newPassword,"q*s");
end
```