EGME 2050 Computational Methods
Spring 2022

Lab Week 2

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Problem 1: Section 5.5

```
function [oddNumbers, evenNumbers, reverseNumbers] = ReturnNumbers(endValue)
% Write a function that return the odd numbers, even numbers and reverse
order
% numbers between 1 and endValue

% Contains odd numbers between 1 and endValue from smallest number to largest
number
oddNumbers = 1:2:endValue;

% Contains even numbers between 1 and endValue from smallest number to
largest number
evenNumbers = 2:2:endValue;

% Contains numbers decreasing from endValue to 1
reverseNumbers = endValue:-1:1;

end
```

Problem 2: Section 6.9

```
function win = NumberGuess (gameNum , userGuess)

    GuessInRange=(gameNum-4)<userGuess & userGuess<(gameNum+4);%GuessInRange
finds which guesses are in range.
    win = sum(GuessInRange)>=2;%win sums the GuessInRange to discover the
total correct guesses

end
```

Problem 3: Section 7.6

```
function [yellow,red,blue,green] = DartNumbers(throwX,throwY)
    %Finds the radius from the center of each dart
    Radius=sqrt(throwX.^2+throwY.^2);
    yellow=sum(Radius<=3);
    red=sum(Radius>3 & Radius<=5);
    blue=sum(Radius>5 & Radius<=10);
    green=10-sum(yellow+red+blue);

end
```

Problem 4: Section 8.4

```
function parcelShip=CanShip(parcelLengths, parcelWidths, parcelHeights,
parcelWeights)% Define function CanShip

    parcelGirth=parcelLengths+2*parcelWidths+2*parcelHeights;
    parcelShip=(parcelGirth<165 & parcelWeights<150);

end
```

Problem 5: Section 9.9

```
function [averageScores, deviationScores, medianScores, modeScores,
partyDecision] = PizzaParty(scores)

    averageScores=mean(scores);
    deviationScores=std(scores);
    medianScores=median(scores);
    modeScores=mode(scores);
    partyDecision=averageScores>=65 & modeScores>=75;

end
```