

BA-Discussion #4, 2020-09-25

- + please make sure that you are in the correct discussion section
- + please unmute, show video, and fully participate!

Announcements

- always do the reading! Lecture videos are just supplemental
- quiz #2 @ 4:40 pm EDT: 10 min to complete, 5 to upload
 - alternate quiz tomorrow morning for other time zones
 - 0.5 pts deducted for every minute late
- homework #1 due Monday
- Exam #1 next Friday @ 4:30 pm EDT (no ET100)
 - start studying now!
- Questions? Check to see if already answered on the Discussion Forum!

Review Quiz 1

Review of Material

- Selection Statements: if, if-else, switch
- is functions
- For loops + nested for loops

How to accomplish the following?

```
* * * * *  
* * * *  
* * *  
* *  
*
```

```
for i = 5:-1:1  
    for j = 1:i  
        fprintf('*')  
    end  
    fprintf('\n')  
end
```

use a nested for loop!

Write a function using a loop that tests if a number is prime or not. Then print if the value is prime or not.

```
function primeNumber(n)  
% Don't forget your block comment!  
tprime = 1;  
for i = n-1:-1:2  
    if mod(n,i) == 0  
        tprime = 0;  
    end  
end  
if tprime == 0  
    disp('This is not a prime number!')  
else  
    disp('This is a prime number.')  
end  
end
```

Rewrite the following nested if-else as a switch statement

** assume that the functions f1(), f2(), f3(), f4() exist **

```

if num < -2 || num > 4
    f1(num)
else
    if num <= 2
        if num >= 0
            f2(num)
        else
            f3(num)
        end
    else
        f4(num)
    end
end
end

```

```

switch num
    case {-2, -1}
        f3(num)
    case {0, 1, 2}
        f2(num)
    case {3, 4}
        f4(num)
    otherwise
        f1(num)
end

```

Write a script that will prompt the user for a character vector and print whether empty or not.

```

in-string = input('Enter a character vector: ', 's');
if isempty(in-string)
    fprintf('Not much of a character vector!\n')
else
    fprintf('Thanks!')
end

```

↓ d stands for string

%c %d %f %s
 └──────────┘
 formatters

Is functions:

- isempty()
- isletter()
- iskeyword()
- isnumeric()

} return logical true (1) or false (0)