Pre-lab Part 1

1. Write pseudo-code for approximating e^x with either a *for* or *while* loop.
2. Write pseudo-code for printing the output for e^x.

1.
get x
set the first term value equal to 1
set the term counter equal to 1
set the initial summation equal to 0
while the term being added up is greater than epsilon
    add the term to the summation
    next term is itself multiple x divided by the term counter
    increase the term counter by 1
end
2.
print the header lines
start the testdata at 0
set the maximum to 9
set the step to 0.1
while the testdata is smaller than the maximum
    get the value of Exp(testdata)
    get the value from library exp(testdata)
    increase the testdata to one step

Pre-lab Part 2

1. What does `getopt()` return? Hint: check the man page.
2. Is a `bool` or an `enum` the best choice? Explain why.
3. Provide pseudo-code for your main function. Assume you have helper functions available to you.

1. It returns the ASCII of the option character from the option element.
2. An enum is better because it assigns only one value to each option, which matches the fact that the five options are mutually exclusive.
3.

main function
    get the input option from the user
    Match the input option with the relative function
    Then for each input option
        print the header lines

```
initialize the testData, maximum, and step value
while the testdata is smaller than the maximum
        get the value of from the self-defined function
        get the value from library function
        increase the testdata to one step
```