Mock Exam 3

CCPROG1 exam

Given the code template, complete the following functions.
https://drive.google.com/file/d/1Whz9qdtZT86urIHa5yyEM9ysJQR0y1JO/view?usp=sharing

Q&A Sheet:
https://docs.google.com/document/d/1mq4QLhfe-AIdM6ZG6mOETS5O7scDUR11mANRn3GyrPA/edit?usp=sharing

Coding Rules

- This exam is open notes and open compiler.
- For the code submission, it is not allowed to use math.h for this exam.
- Submit the modified template to Canvas. This is mock3_last.c
- Do not add additional print statements in the function body other than what is needed..
- **Exam is only until 10:00 AM, We discuss the answers afterwards.** Proceed to the zoom room of our class.

Problems

Given the code templates, complete the following functions. Note: since the include is a .c file, no need to include the file name in the compilation command.

- Complete the function findLargestDigit that takes in a number and will return the largest digit of the sequence.
    - Input: 927452
    - Output: 9
- Complete the function firstPowOver that takes in a number and will return the first number that follows the pattern of two raised to some exponent that is above the input number.
    - Input: 3212
    - Output: 4096 (2 raise to 12)
- Complete the function reverseDigits that takes in a number and will return the number in reverse order of the digits.
    - Input: 927452
    - Output: 254729
- Complete the function isPallindrome that takes in a number and will determine whether the input number is a pallindrome or not. If the number is a pallindrome, the value returned is 1 and if it is not, it will return 0.
    - Input: 12321
    - Output: 1

- Complete the function displayChart which will display the following shape. Per row, a series of asterisks are drawn that corresponds to the digit number specified in the input from right to left. Assume that the maximum number is 9 spaces and all items drawn are right aligned.
    - Input: 927452
    - Output:

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     *****
      ****
   *******
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