2/11/2021

W1D4 Repetition

1. A prime number (or a prime) is a natural number greater than 1 that is not a product of two smaller natural numbers. In other words, it is a number that is only perfectly divisible by number 1 and itself. Write a JavaScript program to test weather user input is a prime number or not.
    a. Your logic should be based on factor count. i.e., prime number will have 0 factors (not counting 1 and itself), while composite will have 1 or more factors.
    b. This time think of a logic to use break statement so that you can break early from the loop, right when you know number is not prime. For example, you know number 8 is not prime right on the first loop because it is perfectly divisible by 2 itself, that's why further testing is not required. If the number is prime loop will proceed until the end.

2. Write a Java program to calculate the factorial value of a given number. E.g., factorial 4 = 4*3*2*1 = 24

3. Write a JavaScript program that gives the user three tries to guess the correct pin of the account. You set the pin as a constant. When correct display “Correct, welcome back.” When incorrect display “Incorrect, try again.”. When run out of tries display “Sorry but you have been locked out.”

4. Write a defining table and JavaScript program to Display Fibonacci series up to N terms. N being positive integer from user input.

   The Fibonacci series is a sequence such that each number is the sum of the two preceding ones, starting from 0 and 1. That is, fib(0) = 0, fib(1) = 1, fib(n) = fib(n – 1) + fib(n – 2) for n > 1.

   0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, …

5. Write a JavaScript program to compute sum of all the digits in a given integer number.

Input	Output
123	6
102	3
8	8

6. Write JS code to print following patterns using nested loops.

1	1	55555
22	12	4444
333	123	333
4444	1234	22
55555	12345	1