Homework: Recursion I

1. Recursive loop where the program checks to see if the natural number is greater than 9. If not greater than 9, the program divides the natural number by 10, increments a counter by 1, then calls itself again. Program then returns the counted number.

2. Recursive loop where the program checks to see if the natural number is greater than 9. If not greater than 9, the program divides the natural number by 10, adds that remainder to a “total” value, then calls itself again. Program then returns the “total” value.

3. Recursive function that isolates the first number of ‘n’, adds it to a total, then calls the same function, passing ‘n’ but without the first number. Once n = 0, the function simply returns 0, and the added numbers are all returned in sequence then added to a total, then returned.

4. Initializes a new NaturalNumber “TWO” (value 2), then divides n by TWO.

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I don't think I interpreted this question right.
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5. Program checks if string length is greater than 1. If it is, the program removes the first letter in the string, and appends it to the end of a new string value. The program then recursively calls a helper method, the only difference being that the helper method returns a “string” instead of a “boolean” value. If the string length is initially less than or equal to 1, the method will simply return the full string to be operated on later.

Once the recursion loop reaches the original method, it checks to see if the original string and the returned string are the same. If so, returns true. (else returns false)