

Exercise 1: Create a method to find the sum of the cubes of the digits of an n digit number

Exercise 2: Write a java program that simulates a traffic light. The program lets the user select one of three lights: red, yellow, or green with radio buttons. On entering the choice, an appropriate message with "stop" or "ready" or "go" should appear in the console .Initially there is no message shown.

Exercise 3: The Fibonacci sequence is defined by the following rule. The first 2 values in the sequence are 1, 1. Every subsequent value is the sum of the 2 values preceding it. Write a Java program that uses both recursive and non-recursive functions to print the nth value of the Fibonacci sequence?

Exercise 4: Write a Java program that prompts the user for an integer and then prints out all the prime numbers up to that Integer?

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Exercise 5: Create a class with a method which can calculate the sum of first n natural numbers which are divisible by 3 or 5.

Test Driven Approach

Method Name	calculateSum
Method Description	Calculate Sum
Argument	int n
Return Type	int-sum
Logic	Calculate the sum of first n natural numbers which are divisible by 3 or 5.

Exercise6: Create a class with a method to find the difference between the sum of the squares and the square of the sum of the first n natural numbers.

Test Driven Approach

Method Name	calculateDifference
Method Description	Calculate the difference
Argument	int n
Return Type	int - Sum
Logic	Find the difference between the sum of the squares of the first n natural numbers and the square of their sum. For Example if n is 10,you have to find (1^2+2^2+3^2+....9^2+10^2)- (1+2+3+4+5...+9+10)^2

Exercise 7: Create a method to check if a number is an increasing number

Test Driven Approach

Method Name	checkNumber
Method Description	Check if a number is an increasing number
Argument	int number
Return Type	boolean
Logic	A number is said to be an increasing number if no digit is exceeded by the digit to its left.

	For Example : 134468 is an increasing number
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Exercise 8: Create a method to check if a number is a power of two or not

Test Driven Approach

Method Name	checkNumber
Method Description	Checks if the entered number is a power of two or not
Argument	int n
Return Type	boolean
Logic	Check if the input is a power of two. Ex: 8 is a power of 2