Question Set 5: Factors and Prime Numbers

Note: Concentrate on Naming Conventions, Readability and Reusability of Functions

1. Find out all factors of N
2. Find if the given number is prime or not
3. Print all prime numbers from 1 to N
4. Print the first "N" prime numbers starting from 2
5. Find the number of prime numbers less than or equal to "N"
6. Find the sum of first N prime numbers
7. Find the sum of all prime numbers less than N
8. Print all prime numbers between m and n. Assume m is always less than n.
9. Print all the prime factors of a given number N
10. Find out number of prime numbers between "m" and "n". Assume m is always less than n
11. Print all prime numbers between m and n. Assume m is greater than n
12. Find out number of prime numbers between "m" and "n". Assume m is greater than n. Consider "m" and "n" being an odd or even number.
13. Find the next prime number given a number
14. Find the previous prime number given a number
15. Find the nearest prime number given a number
16. Find the k^{th} prime number from a given number
17. Check if there exists a prime number in the range between M and N
18. Find the minimum number which has the maximum number of distinct prime factors in the range M to N
19. Represent the given number N as a product of prime numbers.
20. Check if the number N can be represented as the product of two distinct/unique prime numbers
21. Find the largest prime number in a given range between M and N
22. Find the smallest prime number in the given range between M and N