Program Set 3

Dates: 28.11.2022 – 02.12.2022

1. Write a program to find the product of numbers from 1 to 20.
    a. Use while
    b. Use for
    c. Use do-while
2. Write a program to find the sum of all even numbers and sum of all odd numbers between 600 and 800 separately.
3. Check if a given number is prime or not.
4. Reverse a given three digited number and check if the number is palindrome. (Eg. 121, 393)
5. Calculate the power of a number, without using pow. Use loop.
6. Write a program to print out all Armstrong numbers between 1 and 500. If sum of cubes of each digit of the number is equal to the number itself, then the number is called an Armstrong number. For example, 153 = (1 * 1 * 1) + (5 * 5 * 5) + (3 * 3 * 3)
7. Generate the following patterns

    a.
    ```
    1
    22
    333
    4444
    55555
    ```

    b.
    ```
    55555
    4444
    333
    22
    1
    ```

    c.
    ```
    1
    12
    123
    1234
    12345
    ```

    d.
    ```
              1
           2     2
        3     3     3
      4     4     4     4
    5     5     5     5     5
    ```