1. Elaborate a program that obtains from a user two different number ranges (for example [10.. 20] and [30 ..40]) and prints on a screen only even values from the first range and only odd values from the second range.

//==========

2. Elaborate a program that obtains from a user two different number ranges (for example [10.. 20] and [30 ..70]) and prints on a screen only values from the first range that are divisible by 3 without remainder (for example 12,15,18) and values that are divisible by 5 without remainder from the second range (for example 30,35,40,45...).
//==========

3. Elaborate a program that
obtains from a user a sequence of integer values in a loop (the loop should be finished after the user enters a character q)
and prints on a screen only values that meet the following condition.

I. Three digit numbers which first digit is greater than the last one.
II. Four digit numbers which first digit is the same as the last one.
III. Three digit numbers which first digit is less than the last one.
IV. Four digit numbers which first digit is the same as the sum of the third and fourth digits.
V. Three digit numbers which digits sum is even.
VI. Three digit numbers which first and last digits are even.
VII. Three digit numbers which digits sum is odd.
VIII. Three digit numbers which first and last digits are odd.
IX. Three digit numbers which first digit is the same as the last one.
X. Four digit numbers which first digit is the same as the last one.
XI. Three digit numbers which have all digits the same.
XII. Four digit numbers which have all digits the same.
XIII. Three digit numbers which first digit is the same as the last one.
XIV. Four digit numbers which first digit is less than the sum of the third and fourth digits.
XV. Four digit numbers which first digit is greater than the sum of the third and fourth digits.
XVI. Three digit numbers which first digit is less than the sum of the second and third digits.
XVII. Three digit numbers which first digit is greater than the sum of the second and third digits.
XVIII. Three digit numbers which first digit is the same as the sum of the second and third digits.
XIX. Three digit numbers which last digit is less than the sum of the first and second digits.
XX. Three digit numbers which last digit is greater than the sum of the first and second digits.
XXI. Three digit numbers which last digit is the same as the sum of the first and second digits.
XXII. Four digit numbers which have all digits the same.
XXIII. Four digit numbers which have the sum of all digits less than 20.
XXIV. Four digit numbers which have the sum of all digits greater than 20.
XXV. Four digit numbers which have the sum of all digits equal to 20.
//==========
4. Elaborate a program that prints the Fibonacci Sequence.
//==========
The pow() function returns the result of the first argument raised to the power of the second argument. This function is defined in the cmath header file.

```
#include <cmath>
```

//==========
5. Elaborate a program that calculates the value of a polinomial in some point x.
$pol(x)=a_0+a_1x+a_2x^2+a_3x^3$
The values of x and a_0, a_1, a_2, a_3 should be obtained from a user.