1) Write a program that will take an input from user as number and print all the numbers

from 0 to the given number.

public void printNumbers()

{

int number;

Console.WriteLine("Please enter a number: ");

number = Convert.ToInt32(Console.ReadLine());

for (int i = 0; i <= number; i++)

{

Console.WriteLine(i);

}

}

2) Create a program that will find out if the given number is odd or even

public void oddOrEven()

{

int number;

Console.WriteLine("Please enter a number: ");

number = Convert.ToInt32(Console.ReadLine());

if (number%2==0)

{

Console.WriteLine("It is even number");

}

else

{

Console.WriteLine("It is odd number");

}

}

3) Create a program that will take 2 numbers and find out the greatest of the 2

public void greatestNumber()

{

int number1,number2;

Console.WriteLine("Please enter the first number: ");

number1 = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Please enter the second number: ");

number2 = Convert.ToInt32(Console.ReadLine());

if (number1 > number2 == true)

{

Console.WriteLine(number1+" is the greatest number");

}

else

{

Console.WriteLine(number2 + " is the greatest number");

}

}

4) Improve the program written in question 3 to find the greatest of 3 numbers

public void greatestNumber()

{

int number1,number2,number3;

Console.WriteLine("Please enter the first number: ");

number1 = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Please enter the second number: ");

number2 = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Please enter the third number: ");

number3 = Convert.ToInt32(Console.ReadLine());

if (number1 > number2 == true && number1 > number3 == true)

{

Console.WriteLine(number1+" is the greatest number");

}

else if (number2 > number1 == true && number2 > number3 == true)

{

Console.WriteLine(number2 + " is the greatest number");

}

else

{

Console.WriteLine(number3 + " is the greatest number");

}

}

5) Take the minimum and maximum number from user and find all numbers in between

public void range()

{

int number1, number2;

Console.WriteLine("Please enter the minimum number: ");

number1 = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Please enter the maximum number: ");

number2 = Convert.ToInt32(Console.ReadLine());

for (int i = (number1+1); i < number2; i++)

{

Console.WriteLine(i);

}

}

6) Find if a given number is prime

public void isPrime()

{

int number;

Boolean checkpoint;

int middleNumber;

Console.WriteLine("Please enter a number: ");

number = Convert.ToInt32(Console.ReadLine());

middleNumber = number / 2;

checkpoint = true;

for (int i = 2; i <= middleNumber; i++)

{

if(number%i==0)

{

Console.WriteLine(number + " is not a Prime number.");

checkpoint = false;

break;

}

}

if (checkpoint == true)

{ Console.WriteLine(number + " is Prime number.");

}

}

7) Improve the program in 5 to find all the prime numbers between the given numbers

public void rangeIsPrime()

{

int number1, number2;

Boolean checkpoint;

int middleNumber;

Console.WriteLine("Please enter the minimum number: ");

number1 = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Please enter the maximum number: ");

number2 = Convert.ToInt32(Console.ReadLine());

for (int i = number1; i <= number2; i++)

{

checkpoint = true;

for (int n = 2; n <=(i / 2); n++)

{

if (i % n == 0)

{

checkpoint = false;

}

}

if (checkpoint == true)

{

Console.WriteLine(i);

}

}

}

8) Take input from user until the user enters a negative number and find the sum of all the numbers

that are divisible by 7

public void SumAndDivisible()

{

int number;

int sum;

Console.WriteLine("Please enter a number (enter a negative number to stop): ");

number = Convert.ToInt32(Console.ReadLine());

sum = 0;

while (number > 0)

{

sum += number;

if(number%7==0)

{

Console.WriteLine(number +" is divisible by 7");

}

Console.WriteLine("Please enter a number (enter a negative number to stop): ");

number = Convert.ToInt32(Console.ReadLine());

}

Console.WriteLine("The sum of the numbers is " + sum);

}

9) Take a 4 digit number from user and find the sum of all the digits

example - 1234 result should be 10

public void digitsSum()

{

int number;

int sum;

int digitRemainder;

Console.WriteLine("Please enter a 4 digit number: ");

number = Convert.ToInt32(Console.ReadLine());

sum = 0;

while (number > 0)

{

digitRemainder = number % 10;

sum += digitRemainder;

number = number / 10;

}

Console.WriteLine("The sum of the digits is " + sum);

}

10) Take a 4 digit number from user and find if it is a palindrome or not

example - 1234 result should be Not a plaindrome

example - 1221 result should be Plaindrome

public void isPlaindrome()

{

int number;

int sum;

int digitRemainder;

int original;

Console.WriteLine("Please enter a 4 digit number: ");

number = Convert.ToInt32(Console.ReadLine());

sum = 0;

original = number;

while (number > 0)

{

digitRemainder = number % 10;

sum =(sum\*10)+ digitRemainder;

number = number / 10;

}

if (original == sum)

Console.Write("Number is Palindrome.");

else

Console.Write("Number is not Palindrome");

}

11) <https://leetcode.com/problems/powx-n/>

public void pow(int x,int n)

{

x ^= n;

Console.Write(x);

}

12) <https://leetcode.com/problems/happy-number/>

public void isHappy(int n)

{

if (n==1)

{

Console.WriteLine("It is a happy number!!!");

}

else

{

if (n > 1 && n < 5)

Console.WriteLine("It is not a happy number!!!");

break;

int num = n;

int digit;

int sum = 0;

while (num > 0)

{

digit = num % 10;

sum = sum + (digit \* digit);

num = num / 10;

}

isHappy(sum);

}