Third Assignment: Loops

Level 1

***Print first 100 natural numbers***

***let i=1,b=0;***

***while(i<=100){***

***b=b+i;***

***i++;***

***}***

***console.log(b);***

***Print all even numbers between two numbers***

***let i=4***

***while(i<=20)***

***{***

***console.log(i)***

***i=i+2***

***}***

***Count all odd numbers between 1 and 100***

***let i=1,count=0;***

***while(i<=100)***

***{***

***if(i%2!=0){***

***count++***

***}***

***i++***

***}***

***console.log("No of odd Number is:",count)***

***Find sum of all even numbers from 1 to 100***

***let i=2***

***while(i<=100)***

***{***

***console.log(i)***

***i=i+2***

***}***

***Print the table of a number***

***let n=3,i=n;***

***while(i<=n\*10)***

***{***

***console.log(i);***

***i=i+n***

***}***

***Find factorial of a number***

***let fact=1,n=5,i=n;***

***while(i>0)***

***{***

***if(n>0)***

***{***

***fact=fact\*n;***

***n--;***

***}***

***i--***

***console.log(fact)***

***}***

***Check if  a number is prime or not***

***let i,n=19;***

***for(i=2;i<=n;i++){***

***if(n%2==0){***

***console.log(n,"is not prime number")***

***prime=false;***

***}***

***if(n%2!=0)***

***{***

***console.log(n,"is prime number")***

***}***

***break;***

***}***

***Take 10 numbers and find their product***

***let i,j,pro=1;***

***for(i=1;i<=10;i++)***

***{***

***j= 11+ parseInt(Math.random() \* 19)***

***console.log(j)***

***pro=pro\*j***

***}***

***console.log(pro)***

***Print all numbers from 1 to100 in reverse order***

***let i=100;***

***while(i>=1)***

***{***

***console.log(i)***

***i--***

***}***

***Take two numbers and find product of all numbers between them that satisfy following condition:  
 Numbers should be even + second last digit of number is 4***

***let i,pro=1,a,seclast***

***for(i=140;i<=150;i++)***

***{***

***if(i%2==0)***

***{***

***a=parseInt(i/10)***

***seclast=a%10//second last digit***

***if(seclast==4)***

***{***

***console.log(i)***

***pro=pro\*i***

***}***

***}***

***}***

***console.log(pro)***

**Level 2**

***Write a program to find HCF and LCM of two numbers***

***HCF***

***let a,b,i;***

***a=15;***

***b=10;***

***for(i=a<b?a:b;i>0;i--)***

***{***

***if((a%i==0)&&(b%i==0))***

***{***

***break;***

***}***

***} console.log("hcf is",i)***

***LCM***

***let a,b,i;***

***a=12;***

***b=20;***

***for(i=1;i<=a\*b;i++)***

***{***

***if(i%a==0 && i%b==0)***

***{***

***break;***

***}***

***}console.log('LCM is', i)***

***Input a number and find sum of its digit***

***let no=45678,mod,tot=0;***

***while(no>0)***

***{***

***mod=no%10***

***tot=tot+mod***

***no=parseInt(no/10)***

***}***

***console.log("Sum is",tot)***

***Input a number and print all even digit***

***let i=2;***

***while(i<=20)***

***{***

***console.log(i);***

***i=i+2;***

***}***

***Check if a number is palindrome or not( Palindrome means number is equal to the reverse of it)***

***let no=1331,no2=no,rem=0,mod;***

***while(no>0)***

***{***

***mod=no%10;***

***rem=rem\*10+mod;***

***no=parseInt(no/10);***

***}***

***if(rem==no2)***

***{***

***console.log("Given num is palindrome",rem)***

***}***

***Find all prime number between two inputted numbers***

***let i=1,count=0;***

***while(i<=30)***

***{***

***if(i%2!=0){***

***if(i%3!=0){***

***if(i%5!=0){***

***console.log(i)***

***}***

***}***

***}***

***i++***

***}***

***Check if a number is an armstrong number or not.***

***let no=153,no2=no,arm=0,rem;***

***while(no>0)***

***{***

***rem=no%10***

***arm=arm+(rem\*rem\*rem)***

***no=parseInt(no/10)***

***}***

***if(no2==arm){***

***console.log("Given Number is Armstrong")***

***}***

***Check if a number is a special number or not  
A number is said to be a special number when the sum of the factorial of its digits is equal to the number itself. Example- 145 is a Special Number as 1!+4!+5!=145.***

***let no=145,no2=no,no3=0,sum=0;***

***while(no>0)***

***{***

***no3=no%10***

***fact=1***

***while(no3>0)***

***{***

***fact=fact\*no3;***

***no3=no3-1***

***}***

***sum=sum+fact***

***no=parseInt(no/10)***

***}***

***console.log(sum)***

***if(no2==sum)***

***{***

***console.log("Given Number is a Special Number")***

***}***

***else***

***{***

***console.log("Given Number is a Not Special Number")***

***}***

***FizzBuzz problem( solve using modulus only)  
For number from 1 to 100 if number is divisible by 3 print Hello if divisible by 5 print World, if divisible by 15 print HelloWorld else print the number itself***

***let n=1;***

***while(n<=100)***

***{***

***if(n%3==0){***

***console.log("hello")***

***}***

***else if(n%5==0)***

***{***

***console.log("world")***

***}***

***else if(n%15==0)***

***{***

***console.log("hello world")***

***}***

***else***

***{***

***console.log(n)***

***}***

***n++***

***}***

***Check if a number is a Mars number or not.  
A number is called mars number if sum of digit of the number till the sum reduces to 1 digit is even.  
​​199 => 19 => 10 => 1***

***let no=98765,sum=no,mod;***

***while(no>9)***

***{***

***sum=0***

***while(no>0)***

***{***

***mod=no%10***

***sum=sum+mod***

***no=parseInt(no/10)***

***}***

***no=sum***

***}***

***console.log(sum)***

***Take a number and print the digits of the number from left to right.***

***let num=1234,count=0;***

***while(num>0)***

***{***

***num=num/10***

***count++***

***console.log(count)***

***}***

***console.log(count)***