While Loop In Javascript

1. Factorial Number.

```
let n;
let f1 = 1;
let i;
n = prompt ("Enter the number : ");
i = n;
while (i > 1) {
   f1 = f1 * i;
   i--;
}
console.log("Factorial of " +n+ " is", f1);
```

Output:

Factorial of 5 is 120

2. Prime number or not.

```
let n;
let i = 2;
n = prompt ("Enter number : ");
var flag = false;
while (i <= n/2) {
   if (n % i == 0) {
      flag = true;
      break;
   }
   i++;
}
if (!flag)
{
   console.log(n+ " is a prime number");
}
else
{
   console.log(n+ " is not prime number");
}
```

Output:

11 is a prime number

3. Pronic number or not.

```
let n;
let i = 0;
n = prompt ("Enter number : ");
var isPronic = false;
while (i * (i + 1) <= n) {
   if (i * (i + 1) == n) {
      isPronic = true;
      break;
   }
   i++;
}
if (isPronic)
{
   console.log(n+ " is a pronic number");
}
else
{
   console.log(n+ " is not pronic number");
}
```

Output:

132 is a pronic number

4. Perfect number or not.

```
let n;
let i = 1;
let sum = 0;
n = prompt ("Enter number : ");
while (i <= n/2) {
   if (n % i == 0)
   {
      sum += i;
   }
   i++;
}
if (sum ==  n) {
   console.log(n+ " is a perfect number");
}
else
{
   console.log(n+ " is not perfect number");
}
```

Output:

6 is a perfect number

5. Fibonacci series.

```
let n;
let f1 = 0;
let f2 = 1;
n = prompt ("Enter number : ");
let i = 1;
console.log("Fibonacci Series of " +n+ " is : ");
while (i <= n) {
   console.log(f1+ " ");
   let f3 = f1 + f2;
   f1 = f2;
   f2 = f3;
   i++;
}
```

Output:

```
Fibonacci Series of 5 is :
0
1
1
2
3
```

6. Sum of digits.

```
let n;
let n1;
let sum = 0;
n = prompt (" Enter the digit : ");
console.log("Digit : ", n)
while ((n > 0) || (n != 0)) {
   n1 = n % 10;
   n = n / 10;
   sum = sum + n1;
}
console.log("Sum of digit : ", sum);
```

Output:

```
Digit :  123
Sum of digit :  6.666666666666668
```

7. Number is palindrome or not.

```
let n;
n = prompt ("Enter number : ");
let originalNo = n;
let reversedNo = 0;
while (n != 0) {
   let rem = n % 10;
   reversedNo = reversedNo * 10 + rem;
   n = Math.floor(n / 10);
}
if (originalNo == reversedNo)
{
   console.log(originalNo+ " is a palindrome number.");
}
else
{
   console.log(originalNo+ " is not palindrome number.");
}
```

Output:

121 is a palindrome number.

8. Number is armstrong or not.

```
let n;
let n1;
let rem;
let result = 0;
n = prompt ("Enter number : ");
n1 = n;
while (n1 != 0) {
   rem = n1 % 10;
   result += Math.pow(rem, 3)
   n1 =Math.floor(n1 / 10)
}
if (result == n)
{
   console.log(n+ " is a armstrong number.");
}
else
{
   console.log(n+ " is not armstrong number.");
}
```

Output:

153 is a armstrong number.

9. Sum of first and last digit of number.

```
let n;
let sum;
n = prompt ("Enter number : ");
let lastDigit = n % 10;
let firstDigit = n;
while (firstDigit >= 10) {
   firstDigit = Math.floor(firstDigit / 10);
}
sum = firstDigit + lastDigit;
console.log("Given number : ", n)
console.log("Sum of first and last digit : ", sum);
```

Output:

```
Given number :  1234
Sum of first and last digit :  5
```

10. Count number of digits.

```
let n;
let count = 0;
n = prompt ("Enter number : ");
while (n > 0) {
   count++;
   n = Math.floor(n / 10);
}
console.log("Number of digits : ", count);
```

Output:

```
Given digit :  1234
Number of digits :  4
```