**JavaScript Assignment**

**1) Triangular number sequence. (1,3,6,10,15,21,...)=>(1,1+2=3,1+2+3=6,1+2+3+4=10,...)?**

A) <script>

function triangular\_series( n)

{

let i, j = 1, k = 1;

for (i = 1; i <= n; i++)

{

document.write(k+" ");

j = j + 1;

k = k + j;

}

}

let n = 5;

triangular\_series(n)

</script>

**2) Print the prime numbers between a range from 1 to 50?**

A) <html>

<head>

<title>JavaScript Prime</title>

</head>

<body>

<script>

for (var limit = 1; limit <= 50; limit++) {

var a = false;

for (var i = 2; i <= limit; i++) {

if (limit%i===0 &amp;&amp; i!==limit) {

a = true;

}

}

if (a === false) {

document.write("<br>"+limit);

}

}

</script>

</body>

</html>

**3) Print the pattern like as follows for a given input as 6?**

\*

\*\*

\*\*\*

\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*\*

A) let n = 6;

let string = "";

for (let i = 1; i <= n; i++) {

for (let j = 0; j < n; j++) {

string += "\*";

}

string += "\n";

}

console.log(string);

**4) Print the Triangle (Pyramid) pattern?**

\*

\* \*

\* \* \*

\* \* \* \*

A) let n = 5;

let string = "";

for (let i = 0; i < n; i++) {

// printing star

for (let k = 0; k < n - i; k++) {

string += "\*";

}

string += "\n";

}

console.log(string);

**5) Print the diamond?**

A) let n = 5;

let string = "";

// External loop

for (let i = 0; i < n; i++) {

// printing spaces

for (let j = 0; j < i; j++) {

string += " ";

}

for (let k = 0; k < 2 \* (n-i) - 1; k++) {

string += "\*";

}

string += "\n";

}

console.log(string);

**7)Fibonacci Series?**

A) <html>

<head>

<title> Fibonacci Series in JavaScript </title>

</head>

<body>

<script>

var n1 = 0, n2 = 1, next\_num, i;

var num = parseInt (prompt (" Enter the limit for Fibonacci Series "));

document.write( "Fibonacci Series: ");

for ( i = 1; i <= num; i++)

{ document.write (" <br> " + n1);

next\_num = n1 + n2;

n1 = n2;

n2 = next\_num;

}

</script>

</body>

**8) why the do while is important?**

A) Introduction to the JavaScript do-while statement

The do-while loop statement creates a loop that executes a block of code until a test condition evaluates to false . Unlike the while loop, the do-while loop always executes the body at least once before it evaluates the expression.