1. Write the outputs of flowing JavaScript program, next to the comments

```javascript
let x = 1;
let y = '2';
let z = true;
let s = x + y;
console.log(s)              // output?
console.log(typeof s)      // output?
x = x + z;
console.log(x)              // output?
console.log(typeof x)      // output?
y = x++ * y;
console.log(x);             // output?
console.log(typeof x);     // output?
s = parseInt(s)
s+='3';
console.log(s);             // output?
console.log(typeof s);     // output?
z= !z;
console.log(z);             // output?
console.log(typeof z);     // output?
```

What will be the output of running following JS codes?

```
let x = 0;
x++;
console.log(x);
++x;
console.log(x);
console.log(++x);
console.log(x);
console.log(x++);
console.log(x);
```

```
let x = 5;
let y = 7+'';
console.log(x+y);
```

```
let x= 0;
let y = "hello";

let z = x || "Hi";
console.log(z);
let w = y || 5;
console.log(w);
```

```
for(let count =1; count<=10; i++){
    console.log(count);
}
console.log(count); // value of count here?
```

2. Write a JavaScript program that asks user to input gross salary and shows the federal tax he/she
   need to pay for the year. Federal tax brackets are as follows
   a. Salary up to 20K, don't have to pay any federal tax
   b. Salary above 20K and up to 50K, 5% of the salary
   c. Salary above 50K needs to pay 10% of the salary

3. Write a JavaScript program that asks radius of a circle as input form the user and prints the area of the circle using formula (πr^2). Program should keep on prompting user to enter correct value, until the value enter is a positive number. Use Math object for getting the value of π and getting the square of the radius.

4. Write a JavaScript program that prints numbers between 10 and 100 that are multiple of both 3 and 5

5. Write a program that asks for users age and prints "Happy Birthday!" based on the age. For e.g. if the user enters 5, program should print "Happy Birthday!" five time.

6. What will be the output?

```
let x = 1, y = 7;
let message = "Hi";
if (x < 2) {
    if (y > 7) {
        message = "Bye";
    }else{
            message = "HOla";
    }
} else {
    message = "Hello";
}
console.log(message);
```

7. Given the following JavaScript code, how many times will the computer display the word "Goodbye"?
```
for (let i = 0; i > 3; i++) {
        alert("Goodbye");
}
```

8. Given the following JavaScript code, how many times will the computer display the word "Snow"?
```
let i = 0;
while (i < 3) {
        alert("Snow");
}
```