Q1- Find output of the following:

```
const num = 5;
console.log(num + 5);
let a = 6;
a = a + num;
console.log(num - a);
```

Options:

A) 10
-6

B) Error

C) 10
-16

D) 10
-10

Q2- Find output of the following:

```
let a = 2;
{
  let a = 3;
  {
    let a = 4;
    {
      let a = 5;
      console.log(a);
    }
    console.log(a);
  }
  console.log(a);
}
console.log(a);
```

Options:

A)5

4

3

2

B) Error

C) 2

3

4

5

D) 2

2

2

2

Q3- You are given a week's rainfall data of few cities. Using the data write a function **rainDance** which returns an array of objects each object containing city name and average rainfall.

Constraints:

Nil

Sample Input:

```
[
  { name: "Roorkee", rainfall: [5, 6, 5, 5, 4, 7, 8] },
  { name: "Pauri", rainfall: [3, 3, 3, 1, 2, 2, 2] },
];
```

Sample Output:

```
[
  { name: "Roorkee", avgRainfall: 5.714285714285714 },
  { name: "Pauri", avgRainfall: 2.2857142857142856 },
];
```

Q4- You are given an object. Write a function to flatten it, where the term **flatten** is defined as to get all the keys of nested objects and bring them to same level.

Constraints:

Nil

Sample Input:

```
{
  newObj: {
    obj2: {
      obj5: {
        one: 1,
      },
    },
  },
  obj3: {
    obj4: { two: 2 },
  },
}
```

Sample Output:

```
{ 'newObj.obj2.obj5.one': 1, 'obj3.obj4.two': 2 }
```

Q5- Find output of the following:

```
let a = "This only works if and only if";
let b = a.slice(a.indexOf("only"));
let c = b.lastIndexOf("only");
b[c] = "i";
console.log(a);
console.log(b);
```

Options:

A)

Error

B)

This only works if and only if

only works if and only if

C)

This only works if and only if

only works if and only if

D)

This only works if and only if

This only works if and only if

Q6- Write a function 'decToBin' which takes a decimal number and returns its binary.

Constraints:

Nil

Sample Input:

45

Sample Output:

101101

Q7- Find output of the following:

```
let a;
console.log(a);

function A() {
    let a = 2;
    console.log(a);
    function C() {
        console.log(a);
        function D() {
            console.log(a);
            a = 2;
        } D();
        a = 3;
    } C();
}

function B() {
    let a; console.log(a);
    function E() {
        a = 6;
        console.log(a);
    }

    a = 2; E();
    console.log(a);
```

```
}

function F() {
    console.log(a); a = 2;
}
a = 3;
F();
B();
A();
```

Options:

```
A)
Error

B)
undefined
3
undefined
6
6
2
2
2

C)
undefined
3
undefined
6
6
3
3
3

D)
```

```
2
2
2
2
2
2
2
2
```

Q8

```
Write a function f that returns product of x and y with both of the follo
wing function calls

// f(x, y)
// f(x)(y)
```

```
// Q9 - find output of the following:

let count = 0;
let interval = setInterval(function () {
  console.log(count);
  count++;
}, 100);
```

```
setTimeout(function () {
  clearInterval(interval);
  interval = setInterval(function () {
    console.log(count);
    count--;
    if (count < 0) clearInterval(interval);
  });
}, 500);

// options:

// 1) Error

// 2) 0 1 2 3 4....

// 3) 0 1 2 3 4 4 3 2 1 0

// 4) 0 1 2 3 4 3 2 1 0
```

```
// Q10 Find the output of following :

function globalFunction(x) {
  return function outerFunction(y) {
    return function innerFunction(z) {
      return x + y + z;
    };
  };
}

let instance1 = globalFunction(2);
var instance2 = instance1(3);
console.log(instance2());
```

```
// Options:

// 1) undefined
// 2) error
// 3) NaN
// 4) 5undefined
```

Q11

```
// Write a function fn such that if it is called like this then
fn()()()()()(0)  //=> return 4
fn()()()()(0)  //=> return 3
fn()()()()()()(0)  //=> return 5
// and if you using any variable for count then it should be
inside fn
```