```
1.<!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="UTF-8">
        <meta name ="viewport" content="width=device-width,initial-scale=1">
        <title> document</title>
    </head>
<body>
    <script>
const factorial=(num)=>{
    if (num === 0)
    return 1;
    return num*factorial(num-1);
};
console.log(factorial(8));
console.log(factorial(5));
   </script>
</body>
</html>
K TO
          Elements
                   Console
                            Sources
                                     Network
                                              Performance >>
                                                           - I 🕸
 Default levels ▼ No Issues 🛞
                                                        task11.html:17
                                                        task11.html:18
2. <!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="UTF-8">
        <meta name ="viewport" content="width=device-width,initial-scale=1">
        <title> document</title>
    </head>
<body>
    <script>
const fib=(num)=>{
    if (num === 0)
     return 0;
    if(num==1)
    return 1;
```

```
return fib(num-1)+fib(num-2);
};
console.log(fib(8));
console.log(fib(5));
   </script>
</body>
</html>
 K LO
          Elements
                    Console
                             Sources
                                     Network
                                               Performance >> (3)
 top ▼ | ③ |
                                              Default levels ▼
                                                             No Issues
                       ▼ Filter
                                                         task11.html:20
                                                         task11.html:21
3. <!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="UTF-8">
        <meta name ="viewport" content="width=device-width,initial-scale=1">
        <title> document</title>
    </head>
<body>
    <script>
function countWays(n) {
    if (n === 0)
     return 1;
    if (n < 0)
     return 0;
    return countWays(n - 1) + countWays(n - 2) + countWays(n - 3);
}
const n = +parseInt(prompt("enter n:"));
console.log(countWays(n));
```

```
</script>
</body>
</html>
K [0 |
          Elements
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                                             Performance >> (3)
                   Console
                           Sources
Default levels ▼
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                                                       task11.html:24
4. <!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="UTF-8">
        <meta name ="viewport" content="width=device-width,initial-scale=1">
        <title> document</title>
    </head>
<body>
    <script>
  const flatten = (arr) => {
  let result = [];
  arr.forEach(item => {
    if (Array.isArray(item)) {
      result = result.concat(flatten(item));
    } else {
      result.push(item);
    }
  });
  return result;
};
console.log(flatten([1, [2, 3], [4, [5, 6]], 7]));
console.log(flatten([['a', 'b'], ['c', 'd'], 'e']));
   </script>
</body>
</html>
```

```
Elements
                                              Performance >> (3)
                   Console
                            Sources
                                    Network
Default levels ▼ No Issues 🕃
   ▼ (7) [1, 2, 3, 4, 5, 6, 7] (
                                                        task11.html:23
       0: 1
       2: 3
       4: 5
     ► [[Prototype]]: Array(0)
    ▼ (5) ['a', 'b', 'c', 'd', 'e'] (
                                                        task11.html:24
       1: "b"
       3: "d"
       4: "e"
     ► [[Prototype]]: Array(0)
5. <!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="UTF-8">
        <meta name ="viewport" content="width=device-width,initial-scale=1">
        <title> document</title>
    </head>
<body>
    <script>
const towerOfHanoi = (n, source, destination, auxiliary) => {
  if (n === 1) {
    console.log(`Move disk 1 from ${source} to ${destination}`);
   return;
  }
  towerOfHanoi(n - 1, source, auxiliary, destination);
 console.log(`Move disk ${n} from ${source} to ${destination}`);
 towerOfHanoi(n - 1, auxiliary, destination, source);
};
towerOfHanoi(3, 'A', 'C', 'B');
```

</script>

</body>

</html>

