**1. concat() Exercises**  
**Q1: Given the following arrays: Use the concat() method to create a new array that combines both arr1 and arr2.**

 let arr1 = [1, 2, 3];  
let arr2 = [4, 5, 6];

let arr3= arr1.concat(arr2);

console.log(arr3); output = [1, 2, 3, 4, 5, 6]

**Q2:  
Given: Write a TypeScript statement that merges all three arrays into a single array.**

 let names1 = ["Alice", "Bob"];  
let names2 = ["Charlie", "David"];  
let names3 = ["Eve", "Frank"];

let names4= names1.concat(names2,names3);

console.log(names4); output = ["Alice", "Bob", "Charlie", "David", "Eve", "Frank"]

**Q3:  
What will be the output of the following code?** **2. copyWithin() Exercises**

let arr1 = [true, false];  
let arr2 = ["Yes", "No"];  
let arr3 = arr1.concat(arr2, [1, 2, 3]);  
console.log(arr3); output= [true, false, "Yes", "No", 1, 2, 3]

arr3.copyWithin(0, 3, 4);

console.log(arr3); output= ["No", false, "Yes", "No", 1, 2, 3]

**Q4: Given the following array:** **Use the copyWithin() method to replace the first two elements with the last two elements of the array.**

let numbers = [10, 20, 30, 40, 50];

numbers.copyWithin(0, 3, 5);

console.log(numbers); output = [40, 50, 30, 40, 50]

**Q5: What will be the output of the following code?**

let fruits = ["apple", "banana", "cherry", "date", "elderberry"];  
fruits.copyWithin(1, 3, 5);

console.log(fruits); output=[ ["apple", "date", "elderberry", "date", "elderberry"]

**Q6:  
Given**: **Use copyWithin() to copy elements starting from index 2 and place them at index 0**. **3. every() Exercises**

let arr = [1, 2, 3, 4, 5, 6];

arr.copyWithin(0, 2);

console.log(arr); output=[3, 4, 5, 6, 5, 6]

**Q7:  
Given the following array:** **Use the every() method to check if all elements in the array are even numbers.**

 let numbers = [2, 4, 6, 8, 10];

let result = numbers.every(num => num % 2 === 0);

console.log(result); output=true

**Q8:  
What will be the output of the following code?**

let words = ["apple", "banana", "avocado"];  
let result = words.every(word => word.startsWith("a"));  
console.log(result); output = false

**Q9:  
Write a TypeScript function that takes an array of numbers as input and returns true if all numbers in the array are positive. Use the every() method inside the function.**

**4. fill() Exercises**

function areAllPositive(numbers: number[]): boolean {

return numbers.every(num => num > 0);

}

console.log(areAllPositive([1, 2, 3, 4])); output =true

console.log(areAllPositive([1, -2, 3, 4])); output =false

**Q10: Given the array: Use the fill() method to replace all elements with 0.**

let arr = [1, 2, 3, 4, 5];

arr.fill(0);

console.log(arr); output = [0,0,0,0,0]

**Q11:  
What will be the output of the following code?**

let arr = ["A", "B", "C", "D", "E"];  
arr.fill("X", 1, 4);  
console.log(arr); output = ["A", "X", "X", "X", "E"]

**Q12:  
Use the fill() method to update only the last three elements of the following array with "done".**

let status = ["pending", "pending", "pending", "pending", "pending"];

status.fill("done", 2);

console.log(status); output =[ ["pending", "pending", "done", "done", "done"]