**Q1.5 Implement the function “seqentialSearch”**

**Test case 02: Search number 20 in the array:**

<A screenshot of a break point set up>

A screenshot of a computer

AI-generated content may be incorrect.

<Screenshots of a step-by-step flow of one of the functions>

*i=0; check i=0 < arr.length=11*

A screenshot of a computer

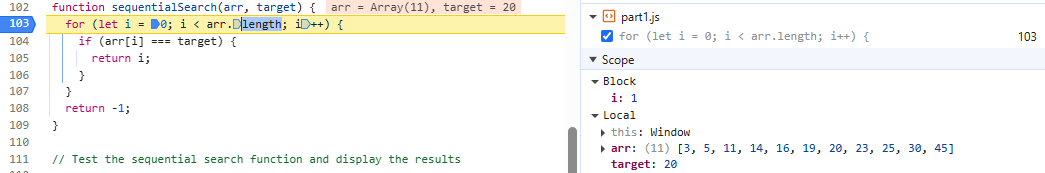
AI-generated content may be incorrect.

*Consider if arr[0]=3 # target =20*

A screenshot of a computer

AI-generated content may be incorrect.

Increase i by 1 : i=1 check i<arr.length=11



*Consider if arr[1]=5 # target =20*

A screenshot of a computer

AI-generated content may be incorrect.

……

I=6; consider arr[6]=20 =target =20

return i=6; The number 20 is found at index 6 in the array.

A screenshot of a computer

AI-generated content may be incorrect.

<A screenshot of variable contents>

**Test case 2: Search number 4 in array.** The number 4 isn’t found in the array. Return -1

A screenshot of a computer

AI-generated content may be incorrect.

**Q1.6 Implement the function “binarySearch”**

**Test case 1: Search number 100 in the array.**

<A screenshot of a break point set up>

A screenshot of a computer screen

AI-generated content may be incorrect.

<Screenshots of a step-by-step flow of one of the functions>

*begin=0; begin=0 end=arr.length-1=10. Consider begin=0 <end=10 to implement while loop*

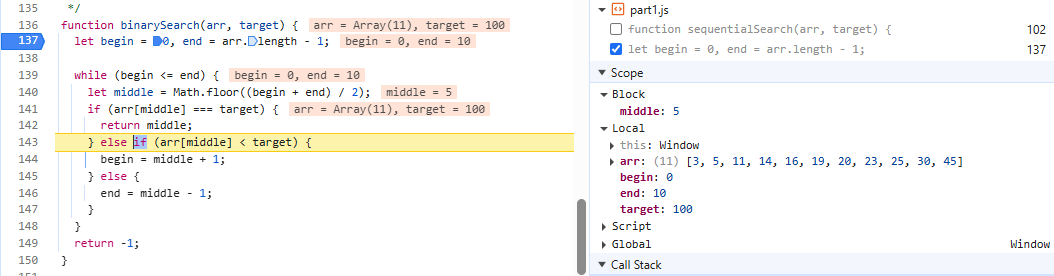
*A screenshot of a computer

AI-generated content may be incorrect.*

Middle=5; consider arr[middle]=arr[5]=19 < target 100

A screenshot of a computer

AI-generated content may be incorrect.



A screenshot of a computer

AI-generated content may be incorrect.

begin=middle+1 =6; end =10;

A screenshot of a computer

AI-generated content may be incorrect.

middle =8; consider arr[middle] =arr[8]=25<target =100

A screenshot of a computer

AI-generated content may be incorrect.

begin=middle +1=9; end =10; middle =9 consider arr[9]=30<target=100

A screenshot of a computer

AI-generated content may be incorrect.

begin=middle +1 =10; end =10; middle =10 consider arr[10]=45<target=100

A screenshot of a computer

AI-generated content may be incorrect.

begin = middle +1=11; end =10; begin =11>end =10; return =-1;

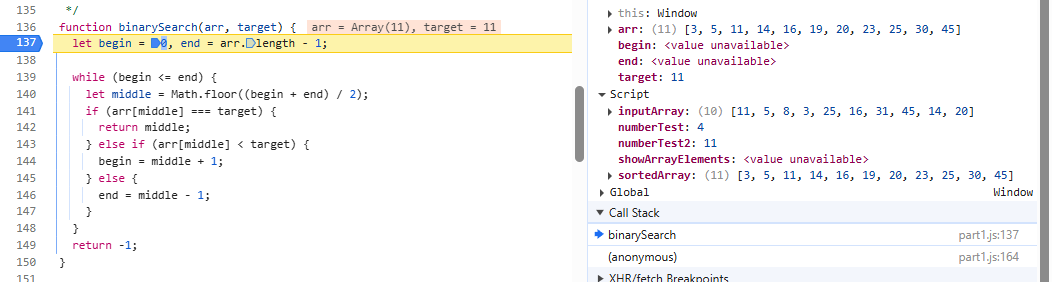
A screenshot of a computer

AI-generated content may be incorrect.

**Test case 2: Search number 11 in the array.**

**Target =11;**

**Begin=0; end=arr.leng-1=10;**

****

Consider begin=0 < end=10 implement to while loop

**A screenshot of a computer

AI-generated content may be incorrect.**

**Middle =5** **A screenshot of a computer

AI-generated content may be incorrect.**

Consider arr[middle] =arr[5] =19 > target =11;

end=middle -1=4; begin =0;

**A screenshot of a computer

AI-generated content may be incorrect.**

middle =2;

**A screenshot of a computer

AI-generated content may be incorrect.**

**consider arr[middle]=arr[2]=11=target, return [middle]=2;**

**A screenshot of a computer

AI-generated content may be incorrect.**