Problem 1:

1. **A1 = [99, 67, 56, 51, 44, 39, 38, 23, 21, 17, 11, 2] searching for 44**

```
Searching for 44:
Array = [99, 67, 56, 51, 44, 39, 38, 23, 21, 17, 11, 2] | Mid = 39
Array = [99, 67, 56, 51, 44] | Mid = 56
Array = [51, 44] | Mid = 51
Array = [44] | Mid = 44
44 is at index 4
```

2. **A1 = [99, 67, 56, 51, 44, 39, 38, 23, 21, 17, 11, 2] searching for 56**

```
Searching for 56:
Array = [99, 67, 56, 51, 44, 39, 38, 23, 21, 17, 11, 2] | Mid = 39
Array = [99, 67, 56, 51, 44] | Mid = 56
56 is at index 2
```

3. **A1 = [99, 67, 56, 51, 44, 39, 38, 23, 21, 17, 11, 2] searching for 42**

```
Searching for 42:
Array = [99, 67, 56, 51, 44, 39, 38, 23, 21, 17, 11, 2] | Mid = 39
Array = [99, 67, 56, 51, 44] | Mid = 56
Array = [51, 44] | Mid = 51
Array = [44] | Mid = 44
Array = [] | Mid = None
42 is at index None
```

4. **A2 = [9, 7, 6, 4, 2, 0, -1, -3, -5, -8, -9] searching for -1**

```
Searching for -1:
Array = [9, 7, 6, 4, 2, 0, -1, -3, -5, -8, -9] | Mid = 0
Array = [-1, -3, -5, -8, -9] | Mid = -5
Array = [-1, -3] | Mid = -1
-1 is at index 6
```

5. **A2 = [9, 7, 6, 4, 2, 0, -1, -3, -5, -8, -9] searching for -7**

```
Searching for -7:
Array = [9, 7, 6, 4, 2, 0, -1, -3, -5, -8, -9] | Mid = 0
Array = [-1, -3, -5, -8, -9] | Mid = -5
Array = [-8, -9] | Mid = -8
Array = [] | Mid = None
-7 is at index None
```

Problem 2:

1. **A3 = [44, 63, 77, 17, 20, 99, 84, 6, 39, 52]**

```
A[0:9], Start = 44, End = 52
A[0:4], Start = 44, End = 20
A[0:2], Start = 44, End = 77
A[0:1], Start = 44, End = 63
A[0:0], Start = 44, End = 44
Base Case Reached: 44 returned
A[1:1], Start = 63, End = 63
Base Case Reached: 63 returned
Return minimum between 44 and 63: 44 returned
A[2:2], Start = 77, End = 77
Base Case Reached: 77 returned
Return minimum between 44 and 77: 44 returned
A[3:4], Start = 17, End = 20
A[3:3], Start = 17, End = 17
Base Case Reached: 17 returned
A[4:4], Start = 20, End = 20
Base Case Reached: 20 returned
Return minimum between 17 and 20: 17 returned
Return minimum between 44 and 17: 17 returned
A[5:9], Start = 99, End = 52
A[5:7], Start = 99, End = 6
A[5:6], Start = 99, End = 84
A[5:5], Start = 99, End = 99
Base Case Reached: 99 returned
A[6:6], Start = 84, End = 84
Base Case Reached: 84 returned
Return minimum between 99 and 84: 84 returned
A[7:7], Start = 6, End = 6
Base Case Reached: 6 returned
Return minimum between 84 and 6: 6 returned
A[8:9], Start = 39, End = 52
A[8:8], Start = 39, End = 39
Base Case Reached: 39 returned
A[9:9], Start = 52, End = 52
Base Case Reached: 52 returned
Return minimum between 39 and 52: 39 returned
Return minimum between 6 and 39: 6 returned
Return minimum between 17 and 6: 6 returned
-----------------------------------------
The minimum number is 6 at index 7
```

2. **A4 = [52, 84, 6, 39, 20, 77, 17, 99, 44, 63]**

```
A[0:9], Start = 52, End = 63
A[0:4], Start = 52, End = 20
A[0:2], Start = 52, End = 6
A[0:1], Start = 52, End = 84
A[0:0], Start = 52, End = 52
Base Case Reached: 52 returned
A[1:1], Start = 84, End = 84
Base Case Reached: 84 returned
Return minimum between 52 and 84: 52 returned
A[2:2], Start = 6, End = 6
Base Case Reached: 6 returned
Return minimum between 52 and 6: 6 returned
A[3:4], Start = 39, End = 20
A[3:3], Start = 39, End = 39
Base Case Reached: 39 returned
A[4:4], Start = 20, End = 20
Base Case Reached: 20 returned
Return minimum between 39 and 20: 20 returned
Return minimum between 6 and 20: 6 returned
A[5:9], Start = 77, End = 63
A[5:7], Start = 77, End = 99
A[5:6], Start = 77, End = 17
A[5:5], Start = 77, End = 77
Base Case Reached: 77 returned
A[6:6], Start = 17, End = 17
Base Case Reached: 17 returned
Return minimum between 77 and 17: 17 returned
A[7:7], Start = 99, End = 99
Base Case Reached: 99 returned
Return minimum between 17 and 99: 17 returned
A[8:9], Start = 44, End = 63
A[8:8], Start = 44, End = 44
Base Case Reached: 44 returned
A[9:9], Start = 63, End = 63
Base Case Reached: 63 returned
Return minimum between 44 and 63: 44 returned
Return minimum between 17 and 44: 17 returned
Return minimum between 6 and 17: 6 returned
-------------------------------------------
The minimum number is 6 at index 2
```

3. **A5 = [6, 17, 20, 39, 44, 52, 63, 77, 84, 99]**

```
A[0:9], Start = 6, End = 99
A[0:4], Start = 6, End = 44
A[0:2], Start = 6, End = 20
A[0:1], Start = 6, End = 17
A[0:0], Start = 6, End = 6
Base Case Reached: 6 returned
A[1:1], Start = 17, End = 17
Base Case Reached: 17 returned
Return minimum between 6 and 17: 6 returned
A[2:2], Start = 20, End = 20
Base Case Reached: 20 returned
Return minimum between 6 and 20: 6 returned
A[3:4], Start = 39, End = 44
A[3:3], Start = 39, End = 39
Base Case Reached: 39 returned
A[4:4], Start = 44, End = 44
Base Case Reached: 44 returned
Return minimum between 39 and 44: 39 returned
Return minimum between 6 and 39: 6 returned
A[5:9], Start = 52, End = 99
A[5:7], Start = 52, End = 77
A[5:6], Start = 52, End = 63
A[5:5], Start = 52, End = 52
Base Case Reached: 52 returned
A[6:6], Start = 63, End = 63
Base Case Reached: 63 returned
Return minimum between 52 and 63: 52 returned
A[7:7], Start = 77, End = 77
Base Case Reached: 77 returned
Return minimum between 52 and 77: 52 returned
A[8:9], Start = 84, End = 99
A[8:8], Start = 84, End = 84
Base Case Reached: 84 returned
A[9:9], Start = 99, End = 99
Base Case Reached: 99 returned
Return minimum between 84 and 99: 84 returned
Return minimum between 52 and 84: 52 returned
Return minimum between 6 and 52: 6 returned
-----------------------------------------
The minimum number is 6 at index 0
```