

```
1. /**
2.  * helpers.c
3.  *
4.  * Computer Science 50
5.  * Problem Set 3
6.  *
7.  * Helper functions for Problem Set 3.
8.  */
9.
10. #include <cs50.h>
11.
12. #include "helpers.h"
13.
14. /**
15.  * Returns true if value is in array of n values, else false.
16.  */
17. bool search(int value, int values[], int n)
18. {
19.     // TODO: implement a searching algorithm
20.     int start = 0;
21.     int end = n - 1;
22.     int middle;
23.
24.     while (start <= end)
25.     {
26.         // finde the value of my variable
27.         middle = (end + start) / 2;
28.         if (values[middle] > value)
29.         {
30.             end = middle - 1;
31.         }
32.         else if (values[middle] < value)
33.         {
34.             start = middle + 1;
35.         }
36.         else
37.         {
38.             return true;
39.         }
40.     }
41.     return false;
42. }
43.
44. /**
45.  * Sorts array of n values.
46.  */
47. void sort(int values[], int n)
48. {
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```
49.     int minimun;
50.     // TODO: implement an O(n^2) sorting algorithm
51.     for (int i = 0; i < (n - 1); i++)
52.     {
53.         minimun = i;
54.         for (int j = i + 1; j < n; j++)
55.         {
56.             if (values[j] < values[minimun])
57.             {
58.                 minimun = j;
59.             }
60.         }
61.     }
62.     // Change of place
63.     if (minimun != 1)
64.     {
65.         int y = values[i];
66.         values[i] = values[minimun];
67.         values[minimun] = y;
68.     }
69. }
70.
71. return;
72. }
```