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9) Consider the following statements:

```
int *p;
int i;
int k;
i = 42;
k = i;
p = &i;
```

After these statements, which of the following statements will change the value of i to 14?

- A. k = 14;
- B. \*k = 14;
- C. p = 14;
- ☒ D. \*p = 14;
- E. Two or more of the answers will change i to 14.

10) Write a C program that manages a linked list. Your program should include functions: void list\_insert(int val); int list\_search(int val); The first function inserts an integer value to the ordered list and the second function searches an integer value in the list and returns its index. You can write a main() function to call the two functions. Make sure the elements in the list are ordered.

a. You can define your struct type for each entry in the list.

```
#include <stdio.h>
#include <stdlib.h>

struct node {
    int index;
    int val;
    struct node *next;
};

int main() {
    struct node list1;
    struct node list2;
    struct node list3;
    struct node list4;
    list1.index = 15;
    list1.val = 3;
    list2.index = 16;
    list2.val = 4;
    list3.index = 17;
    list3.val = 9;
    list4.index = 18;
    list4.val = 12;
    list_search(16, &list1);
}
```

```
if (list_search == 0)
    list_insert(int val, &list1);
return 0;

int list_search(int val, struct node *list) {
    while (list != null) {
        if (list->val == val) {
            return (list->index);
        }
        list = list->next;
    }
    return 0;
}

void list_insert(int val, struct node *list) {
    if (val < list->val)
        return 0;
    while (list != null) {
        if (val >= list->val && val < list->next->val) {
            list = list->next;
        }
        else {
            list->next->val = val;
        }
    }
    return 0;
}
```