Exercise 2

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Exercise 2

1 point possible (graded)

ESTIMATED TIME TO COMPLETE: 5 minutes

Here is some code for linear search that uses the fact that a set of elements is sorted in increasing order:

```
def search(L, e):
    for i in range(len(L)):
        if L[i] == e:
            return True
        if L[i] > e:
            return False
    return False
```

Consider the following code, which is an alternative version of `search`.

```
def search1(L, e):
    for i in L:
        if i == e:
            return True
        if i > e:
            return False
    return False
```

Which of the following statements is correct? You may assume that each function is tested with a list `L` whose elements are sorted in increasing order; for simplicity, assume `L` is a list of positive integers.

- ◯ `search` and `search1` return the same answers.

- `search` and `search1` return the same answers provided `L` is non-empty.
- `search` and `search1` return the same answers provided `L` is non-empty and `e` is in `L`.
- `search` and `search1` do not return the same answers.
- `search` and `search1` return the same answers for lists of length 0 and 1 only.

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