

```
1 def insertion_sort(num_list):
2     """Sort a list of numbers using insertion sort"""
3
4     result = num_list.copy()
5     n = 0
6     for i in range(1, len(result)):
7         key = result[i]
8         j = i - 1
9         while j >= 0 and key < result[j]:
10             n += 1
11             result[j + 1] = result[j]
12             j -= 1
13         else:
14             result[j + 1] = key
15
16     return n, result
17
18
19 # Take list input and turn each into an integer
20 num_list = list(
21     map(int, input("Please input the numbers in the list separated by space: ").split())
22 )
23 assert len(num_list) > 0, "Empty list provided"
24 print(f"{num_list} is the original list")
25
26 n, sorted_list = insertion_sort(num_list)
27 print(f"{sorted_list} is the sorted list and took {n} iterations to sort.")
```