```python
nums = input("Enter a list of at least five integers (separated by
spaces): ").split()
nums = list(map(int, nums))


print("Total number of items in the list:", len(nums))

print("Fourth item in the list:", nums[3])


print("Last three items in the list:", nums[-3:])


print("All items in the list except the first two:", nums[2:])

print("List in reverse order:", nums[::-1])

print("Largest value:", max(nums))
print("Smallest value:", min(nums))


print("Sum of all values:", sum(nums))

if 0 in nums:
    print("Index of the first zero:", nums.index(0))
else:
    print("There are no zeroes in the list.")

sorted_nums = sorted(nums)
print("Sorted list:", sorted_nums)


sorted_nums = sorted_nums[1:]
print("List after deleting the first item:", sorted_nums)


sorted_nums[-2] = 9876
print("List after changing the second-to-last item:", sorted_nums)


sorted_nums.append(-500)
print("List after appending -500:", sorted_nums)
```

```
Enter a list of at least five integers (separated by spaces): 5 10 15
20 25
Total number of items in the list: 5
Fourth item in the list: 20
Last three items in the list: [15, 20, 25]
```

```
All items in the list except the first two: [15, 20, 25]
List in reverse order: [25, 20, 15, 10, 5]
Largest value: 25
Smallest value: 5
Sum of all values: 75
There are no zeroes in the list.
Sorted list: [5, 10, 15, 20, 25]
List after deleting the first item: [10, 15, 20, 25]
List after changing the second-to-last item: [10, 15, 9876, 25]
List after appending -500: [10, 15, 9876, 25, -500]
```

```
numbers = input("Enter a list of numbers (separated by spaces):
").split()
numbers = list(map(float, numbers))


smallest = min(numbers)
index = numbers.index(smallest)


print("Smallest item:", smallest)
print("First index of smallest item:", index)
```

```
Enter a list of numbers (separated by spaces): 3 6 9 12 15
Smallest item: 3.0
First index of smallest item: 0
```

```
string = input("Enter a string of letters: ").lower()


counts = [0] * 26


for char in string:
    index = ord(char) - ord('a')
    counts[index] += 1

for i, count in enumerate(counts):
    if count > 0:
        letter = chr(i + ord('a'))
        print(f"Count of {letter}'s:", count)
```

```
Enter a string of letters: language
Count of a's: 2
Count of e's: 1
Count of g's: 2
Count of l's: 1
Count of n's: 1
Count of u's: 1
```

```python
dict = {
    'abc': 7,
    'def': 11,
    'ghi': 13,
    'jkl': 17,
    'mno': 19
}

print("Value associated with 'def':", dict['def'])

# (b) Print all the keys
print("All keys:", dict.keys())

for key, value in dict.items():
    print(key, "->", value)


if 'pqr' in dict:
    print("The dictionary contains the key 'pqr'.")
else:
    print("The dictionary does not contain the key 'pqr'.")


dict['abc'] = 23
print("All values:", dict.values())
```

```
Value associated with 'def': 11
All keys: dict_keys(['abc', 'def', 'ghi', 'jkl', 'mno'])
abc -> 7
def -> 11
ghi -> 13
jkl -> 17
mno -> 19
The dictionary does not contain the key 'pqr'.
All values: dict_values([23, 11, 13, 17, 19])
```