

```

import random
numbers = random.sample(range(1, 101), 10)
print("Original List:", numbers)
sorted_numbers = sorted(numbers)
second_largest = sorted_numbers[-2]
second_smallest = sorted_numbers[1]
print("Second Largest:", second_largest)
print("Second Smallest:", second_smallest)
even_numbers = [num for num in numbers if num % 2 == 0]
odd_numbers = [num for num in numbers if num % 2 != 0]
print("Even Numbers:", even_numbers)
print("Odd Numbers:", odd_numbers)
even_numbers.sort(reverse=True)
odd_numbers.sort(reverse=True)
print("Even Numbers (Descending):", even_numbers)
print("Odd Numbers (Descending):", odd_numbers)

```

2 a

```

sentence = input("Enter a sentence: ").strip()
word_count = len(sentence.split())
print("Number of words in the sentence:", word_count)

```

2b

```

char_frequency = {}
for char in sentence:
    if char != " ": # Ignore spaces
        char_frequency[char] = char_frequency.get(char, 0) + 1
print("Character Frequencies:", char_frequency)

```

2c

```

max_frequency = max(char_frequency.values())
most_frequent_chars = [char for char, freq in char_frequency.items() if freq == max_frequency]
print("Most Frequent Character(s):", most_frequent_chars)

```