

Create a list of integers from 1 to 10

```
1  nums = [1,2,3,4,5,6,7,8,9,10]
2  print(nums)
3
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/L
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
PS C:\Users\saivi\Downloads\html>
```

How can you access the first element of a list?

```
1  nums = [1,2,3,4,5,6,7,8,9,10]
2  print(nums[0])
3
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/L
1
PS C:\Users\saivi\Downloads\html>
```

Write a Python code to append an element to the end of a list.

```
1  nums = [1,2,3,4,5,6,7,8,9,10]
2  nums.append(11)
3  print(nums)
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/L
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]
PS C:\Users\saivi\Downloads\html>
```

How do you remove the last element from a list?

```
1  nums = [1,2,3,4,5,6,7,8,9,10]
2  nums.pop(9)
3  print(nums)
4
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/L
[1, 2, 3, 4, 5, 6, 7, 8, 9]
PS C:\Users\saivi\Downloads\html>
```

How can you find the length of a list?

```
1  nums = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
2  length = len(nums)
3  print(length)
4
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/L
10
PS C:\Users\saivi\Downloads\html>
```

Write a Python program to find the largest number in a list.

```
1  nums = [10, 25, 67, 89, 45]
2  largest = max(nums)
3  print("The largest number is:", largest)
4
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/L
The largest number is: 89
PS C:\Users\saivi\Downloads\html>
```

How can you sort a list in ascending order?

```
1  nums = [10, 3, 5, 1, 7, 6, 2, 8, 9, 4]
2  nums.sort()
3  print(nums)
4
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
PS C:\Users\saivi\Downloads\html>
```

Write a code to check if an element is present in a list or not.

```
1  nums = [10, 25, 67, 89, 45]
2  number = 67
3
4  if number in nums:
5      print(f"{number} is in the list")
6  else:
7      print(f"{number} is not in the list")
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
67 is in the list
PS C:\Users\saivi\Downloads\html>
```

How do you find the index of an element in a list?

```
1  nums = [10, 25, 67, 89, 45]
2  element = 67
3
4  index = nums.index(element)
5  print(f"{element} is at index {index}")
6
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
67 is at index 2
PS C:\Users\saivi\Downloads\html>
```

How can you create a list of 5 elements, then remove all of them?

```
1  nums = [10, 25, 67, 89, 45]
2  nums.clear()
3  print(nums)
4
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
[]
PS C:\Users\saivi\Downloads\html>
```

How can you slice a list to get elements from index 2 to 5?

```
1  nums = [10, 25, 67, 89, 45, 60, 75]
2  sliced = nums[2:5]
3  print(sliced)
4
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
[67, 89, 45]
PS C:\Users\saivi\Downloads\html>
```

How can you concatenate two lists in Python?

```
1  list1 = [10, 25, 67]
2  list2 = [89, 45, 60, 75]
3
4  concatenated = list1 + list2
5  print(concatenated)
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
[10, 25, 67, 89, 45, 60, 75]
PS C:\Users\saivi\Downloads\html>
```

How can you copy a list into another list?

```
1  nums = [10, 25, 67, 89, 45]
2  copy = nums.copy()
3  print(copy)
4
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
[10, 25, 67, 89, 45]
PS C:\Users\saivi\Downloads\html>
```

Write a Python program to count the number of times an element appears in a list.

```
1  nums = [10, 25, 67, 25, 89, 45, 25, 67, 25]
2  element = 25
3
4  count = nums.count(element)
5  print(f"{element} appears {count} times in the li
6
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
25 appears 4 times in the list
PS C:\Users\saivi\Downloads\html>
```

How can you check if a list is empty?

```
1  nums = []
2
3  if not nums:
4      print("The list is empty")
5  else:
6      print("The list is not empty")
7
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
The list is empty
PS C:\Users\saivi\Downloads\html> █

Write a Python program to reverse a string.

```
1  name = "Vignesh Ch"
2  reversed_string = name[::-1]
3  print("Reversed string:", reversed_string)
4
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
Reversed string: hC hsengiV
PS C:\Users\saivi\Downloads\html> █

String questions:

Create a string variable that holds your name and print it. How do you convert a string to uppercase in Python?

```
1  name = "Vignesh"
2  print(name)
3
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
Vignesh
PS C:\Users\saivi\Downloads\html> █

```
1  name = "Vignesh"
2  uppercase = name.upper()
3  print(uppercase)
4
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
VIGNESH
PS C:\Users\saivi\Downloads\html> █

Write a code to check if a string contains a specific substring.

```
1  name = "Vignesh Ch"
2  substring = "Ch"
3
4  if substring in name:
5      print(f'"{substring}" is in the string')
6  else:
7      print(f'"{substring}" is not in the string')
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
"Ch" is in the string
PS C:\Users\saivi\Downloads\html> █

How can you find the length of a string in Python?

```
1  name = "Vignesh Ch"
2  length = sum(1 for char in name)
3  print("Length of the string:", length)
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\saivi\Downloads\html> & C:/Users/saivi/AppData/
Length of the string: 10
PS C:\Users\saivi\Downloads\html> █