

1. **Summing all the numbers up:** Given the list `[1, 5, 8, ["a", 7, 10, [13, "b"]], "c", [{"d"}, 11], 12, [{"e"}], "f", 18]` access all the integers and sum them up using a Python program.
2. **Summing all the letters up:** Given the same list `[1, 5, 8, ["a", 7, 10, [13, "b"]], "c", [{"d"}, 11], 12, [{"e"}], "f", 18]` access all the letters and concatenate them up using a Python program.
3. **Mathematics in the matrix:** Given the matrix `[[2, 5, 6, 7], [2, 4, 8, 9], [6, 7, 5, 9], [3, 2, 1, 4]]` access and compute the following:
 1. the sum of all even numbers,
 2. the sum of all odd numbers,
 3. the sum of all the numbers under the main diagonal,
 4. the sum off all the numbers over the second diagonal,
 5. the mean of the number on the main and second diagonal.