

- 1 Find largest and smallest number in a list
- 2 Create a list of random numbers and remove all duplicate elements in the list.
- 3 Write a Python program to find the list of words that are longer than n from a given list of words.
- 4 Write a Python function that takes two lists and returns True if they have at least one common member.
- 5 A certain CS professor gives 100-point exams that are graded on the scale 90- 100:A, 80-89:B, 70-79:C, 60-69:D, <60:F. Write a program that accepts an exam score as input and prints out the corresponding grade.
- 6 An acronym is a word formed by taking the first letters of the words in a phrase and making a word from them. For example, RAM is an acronym for "random access memory." Write a program that allows the user to type in a phrase and then outputs the acronym for that phrase. Note : The acronym should be all uppercase, even if the words in the phrase are not capitalized.
- 7 Numerologists claim to be able to determine a person's character traits based on the "numeric value" of a name. The value of a name is determined by summing up the values of the letters of the name where "a" is 1 "b" is 2 "c" is 3 up to "z" being 26 For example the name "Zelle" ' ' ' . ' would have the value $26 + 5 + 12 + 12 + 5 = 60$ (which happens to be a very auspicious number, by the way). Write a program that calculates the numeric value of a single name provided as input.
- 8 Write a program that counts the number of words in a sentence entered by the user
- 9 Write a program that finds the average of a series of numbers entered by the user (random numbers). As in the previous problem, the program will first ask the user how many numbers there are. Note: The average should always be a float, even if the user inputs are all ints.
- 10 The Goldbach conjecture asserts that every even number is the sum of two prime numbers. Write a program that gets a number from the user, checks to make sure that it is even, and then finds two prime numbers that add up to the number.