

1. What is a lambda function in Python?
2. What is the syntax for defining a lambda function?
3. Can a lambda function have multiple parameters?
4. What is the difference between a lambda function and regular function?
5. Can a lambda function contain multiple expressions?
6. When is it appropriate to use a lambda function instead of a regular function?
7. How do you use the map() function with a lambda function?
8. What is the purpose of the filter() function when used with a lambda function?
9. Can you use a lambda function to calculate the sum of elements in a list?
10. How do you create a lambda function to find the square of a number?
11. How do you use lambda functions with the sorted() function to sort dictionaries?
12. square of Numbers:
13. Write a program that takes a list of numbers and uses a lambda function to calculate the square of each number.
14. Create a program that filters out the odd numbers from a list using a lambda function with the filter() function.
15. Write a program that sorts a list of tuples based on the second element of each tuple using a lambda function with the sorted() function.
16. Develop a program that calculates the sum of elements in a list using a lambda function with the reduce() function from the functools module.
[Note: The reduce() function is used when you want to perform a cumulative operation on a sequence of elements in order to reduce that sequence to a single value. It's particularly useful when you have a series of values and you want to combine them in a specific way to obtain a final result]
17. Create a program that finds the maximum element in a list using a lambda function with the max() function.
18. Write a program that takes a list of strings and uses a lambda function to reverse each string.
19. Create a program that sorts a list of strings based on their length using a lambda function with the sorted() function.

20. Develop a program that counts the number of vowels in a list of words using a lambda function.
21. Write a program that takes two numbers as input, a base and an exponent, and calculates the exponential using a lambda function.
22. Create a program that uses a lambda function to filter out even numbers from a given list.
23. Write a program that sorts a list of dictionaries based on a specific key using a lambda function with the sorted() function.
24. Develop a program that calculates the average of elements in a list using a lambda function with the sum() function.
25. Create a program that sorts a list of strings based on their last character using a lambda function with the sorted() function.
26. Write a program that checks whether a list of numbers are prime or not using a lambda function.
27. Develop a program that sorts a list of lists based on the length of their sublists using a lambda function with the sorted() function.
28. Create a program that finds the smallest element in a list using a lambda function with the min() function.
29. Write a program that sorts a list of strings based on the number of vowels they contain using a lambda function with the sorted() function.
30. Develop a program that takes a list of pairs (base, exponent) and calculates the power of each pair using a lambda function.
31. Create a program that sorts a list of integers based on the number of digits using a lambda function with the sorted() function.
32. Write a program that uses a lambda function to filter out palindromes from a given list of strings.