

第十周

1. Write a function which can compute the factorial of a given numbers. The results should be printed in a comma-separated sequence on a single line.
Suppose the following input is supplied to the program:
8
Then, the output should be:
40320
2. Write a function that accepts a sentence and calculate the number of letters and digits.
Suppose the following input is supplied to the program:
hello world! 123
Then, the output should be:
LETTERS 10
DIGITS 3
3. Write a function to determine whether any real number a, b, c form a triangle or not.
4. Write a function to calculate the area of a triangle with three edges equal to a, b, c, respectively.
5. Write a function to find gcd(a, b): the greatest common divisor of two positive integers a, b; e.g., gcd(10, 3) = 1, gcd(9, 6) = 3.
6. Write a function to determine whether a year is called a leap year.
7. Write a function to find the three angles of a given triangle with edge lengths equal to a, b, c, respectively.
8. Please write a function which accepts a string from console and print it in reverse order.
Suppose the following input is supplied to the program:
rise to vote sir
Then, the output should be:
ris etov ot esir
Hints:
Use `list[::-1]` to iterate a list in a reverse order.
9. With a given list [12, 24, 35, 24, 88, 120, 155, 88, 120, 155], write a program to print this list after removing all duplicate values with original order reserved.
10. Define a function that can accept two strings as input and print the string with maximum length in console. If two strings have the same length, then the function should print all strings line by line.
11. Define a function that can accept an integer number as input and print "It is an even number" if the number is even, otherwise print "It is an odd number".