

Experimental High Energy Physics

Python lecture: 20/06/2011

Exercise – 1

1. Write a program in python, which takes two numbers (or set of numbers) as input and find whether they are co-prime? For ex 9 and 4 are co-prime numbers.
2. Write a program in python for matrix multiplication.
3. Write a program in python, which takes a string as input and determine the number of unique tokens present in the string. For each token, determine the frequency of occurrences in the given string.

For Example: "The Times of India is the most read times in India"

Unique token count: 8

Unique token	count
The	2
Times	2
of	1
India	2
is	1
most	1
read	1
in	1

4. Given two axis parallel rectangles with their co-ordinates in Euclidean space. Write a program in python to determine whether the two rectangles intersect. Also find out the co-ordinates of the intersection.

Note:

- a. Make suitable assumptions wherever necessary.
- b. Take any data structure you want.
- c. Please give meaningful comments to the code.