

Aims and Objective:

1. Demonstrate working knowledge on tuple
2. Solve problem with tuple

1. Write a program that accepts N rectangles and calculates the total area of all rectangles. The first input is N and follow by list of quadruplets (x, y, width, height). You may assume all inputs are positive integer (including zero)

Define a function `rectArea(r)` which returns the area of a rectangle r, where r is a tuple with the following format:

`(x, y, width, height)`

In this part, there is no need to consider whether two rectangles are overlapped or not.

Case	Input	Output
1	1 0 0 4 5	20
2	2 0 0 4 5 10 10 4 3	32
3	4 5 6 1 1 4 10 4 4 5 6 2 3 50 100 50 5	273

2. Modify the program in part (1) such that the program will return calculate the total area occupied by all rectangles. Hint: you may need a new tuple format like the one listed below:

(x1, y1, x2, y2)

Case	Input	Output
1	4 5 6 1 1 4 10 4 4 5 6 2 3 50 100 50 5	272
2	2 0 0 10 10 2 2 6 5	100
3	3 1 1 4 4 3 3 6 4 8 1 3 3	44
4	3 2 2 4 4 5 3 2 2 4 4 4 4	29