## Problem ID: 9

## Problem Name: Box stacker++

## Description: Given a collection of boxes that are rectangular-shaped, how can we determine if the boxes can be safely stacked or not? Safe stacking requires that a box be stacked on top of another box that is at least 10% wider and longer, and at least 50% taller. If you are given a collection of numbers in subsets of three representing the dimensions of box in the collection, e.g. {(3, 3, 4), (2, 10, 15), (30, 10, 4)} how can we determine if it is possible to stack the boxes safely? If a single stack cannot be made then what is the minimum number of stacks would be needed to safely stack the collection?

## UB Number:

## Name:

<ADD YOUR **ONE PAGE** ANALYSIS AND PROPOSED SOLUTION HERE AND REMOVE THIS TEXT.>

<ADD YOUR FLOW CHART OR PSEUDOCODE HERE AND REMOVE THIS TEXT. NO ADDITIONAL TEXT SHOULD BE ON THIS PAGE EXCEPT FOR TEXT IN A FLOWCHART OR PSEUDOCODE ALGORITHM>