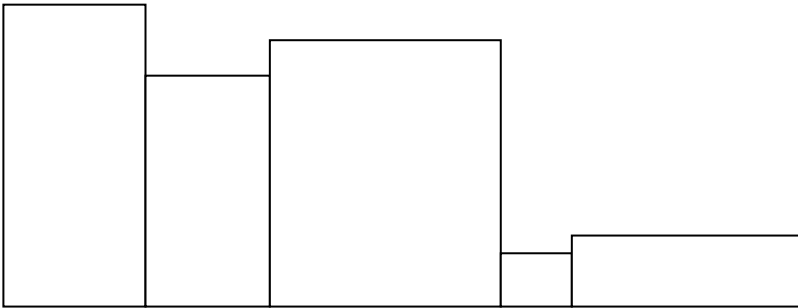# The Rotating Rectangle Problem – Derivco Full Stack

Using the provided solution *(Derivco.FullStack.Assignment.sln)*, complete and solve the problem below.

Input:
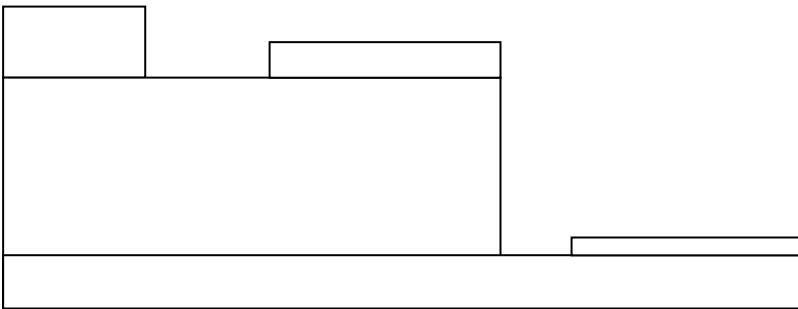A random set of rectangles placed next to each other, from left to right, on the same baseline.

Example:

Output:
The minimum number of vertically stacked rectangles that represents the same area and resulting shape as described by the input rectangles.

Example:

The Problem:
Using Full Stack Technologies and Practices, complete the attached solution that will:
- Allow the user to specify the number of input rectangles (between 3 and 30).
- Generate the requested number of input rectangles (with random widths and heights) and display them in a readable format.
- Display the input rectangles graphically, correctly laid out, as in the example above.
- Calculate the output rectangles and display them.
- Display the output rectangles graphically, correctly laid out as in the example above. Note: Both the input and output rectangles must be displayed together.

Required Deliverables:
- Working Solution
- Source Code

For extra credit, improve the provided implementation.

Hint: Use **best practices** when designing and creating all aspects of this application, as all aspects of your solution will be evaluated.

(The provided solution requires Visual Studio 2017, .Net Framework 4.7.1 and ASP.NET Core 2.0)