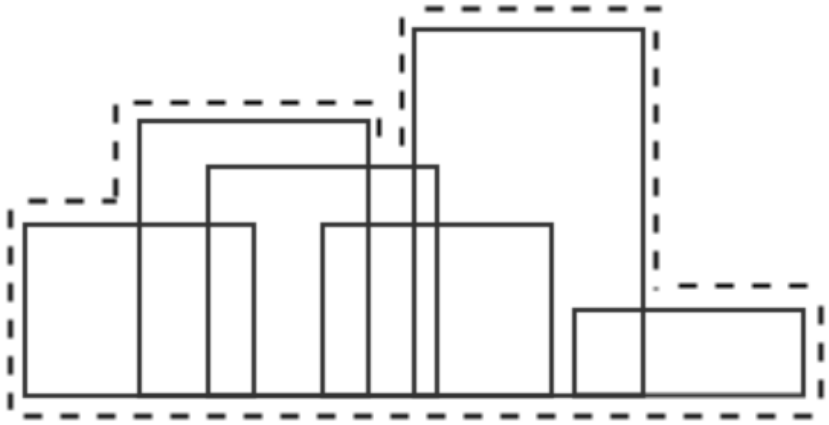
How would you compute the area of the polygon that encloses the set of rectangles show below?

Assume that each rectangle is described by a horizontal position, width, and height, and rectangle data are given in no particular order.

What is the order of complexity of the processing you describe?