

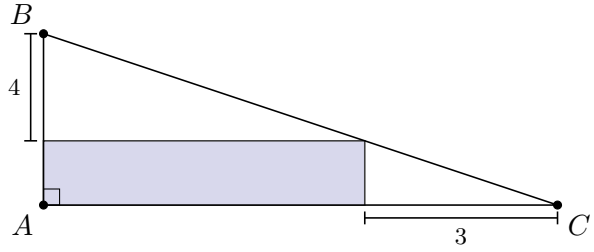
Rectangle in a Triangle

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1 Problem Statement

Consider the blue rectangle that shares its bottom left corner with that of the triangle $\triangle ABC$ as seen in the figure to the right. The length of the line segment between points B and the top left corner of the rectangle is 4 units while the length of the line segment between the bottom right corner of the rectangle and point C is 3 units.



1. Find the area of the rectangle.
2. What is the minimum area of the triangle $\triangle ABC$?