

## 2. Point-in-triangle test

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**Files:** The accompanying files for this assignments are `geoc_lab2.html` and `TestLab2_i.json.js` (for  $i = 1, 2, 3$ ).

**Delivery:** upload the modified HTML file and any other necessary files to the Racó.

The goal is to classify the relative position of a point with respect to a triangle.

Write a program to decide whether a point is located in the interior, the boundary or the exterior of a triangle. When the point lies in the boundary, the program must also detect whether the point coincides with a vertex or not.

Mark in **green** the interior points and in **red** the points in the exterior. Use two **other colors** of your choice for the boundary points, and add a meaningful description for each of the four cases. Make sure that your program works properly, no matter whether the vertices of the triangle are given in clockwise or counter-clockwise order.

Your program should be used to correctly classify the points and triangles in the files `TestLab2_i.json.js` (for  $i = 1, 2, 3$ ). To that end, modify the HTML file in the area signaled with a “TODO” comment.