## Problem 10

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Call the distinct edge-simple chains  $ch_1$  and  $ch_2$  and construct a vertex-simple cycle  $c_y$  as follows. If either  $ch_1$  or  $ch_2$  is not vertex-simple, then start  $c_y$  at any vertex v which appears more than once and follow the chain until it returns to v. Otherwise, start  $c_y$  at the last vertex at or after s incident to both  $ch_1$  and  $ch_2$ , follow  $ch_1$  until the first vertex before or at t incident to both chains and return via  $ch_2$ .

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