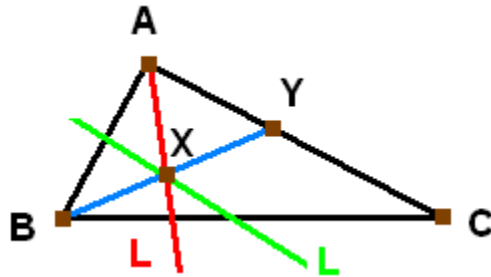


FIGURE FOR SOLUTIONS TO ADDITIONAL EXERCISES, SET C

These exercises are posted in <http://math.ucr.edu/~res/math133/triangle-exercises.pdf>, and the written solutions are posted in <http://math.ucr.edu/~res/math133/triangle-solutions.pdf>.

C3.



The line **L** is assumed to contain the interior point **X** of the triangle. The objective is to show that there are two possibilities for **L**; either it meets the triangle in two sides between the vertices (shown in green), or else it goes through one vertex and its opposite side (shown in red). The auxiliary point **Y** and line **BX** in the proof are also depicted.