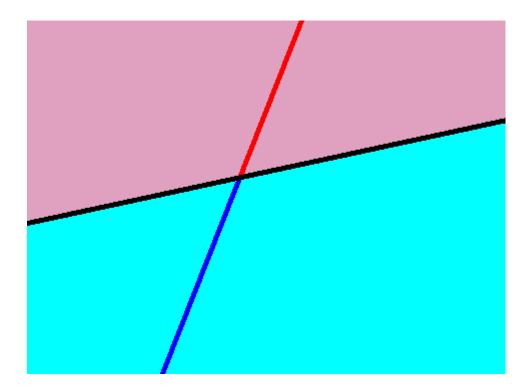
Generalization of Problem 3



Suppose that we are given two intersecting lines in the plane, say L (the black line) and M (the red and blue line), and they meet at a point P. Then $M - \{P\}$ consists of two open rays (the red and blue ray). Each of them is the intersection of L with one of the open half-planes (sides) determined by L. These half-planes are shaded in lighter tones of red and blue.