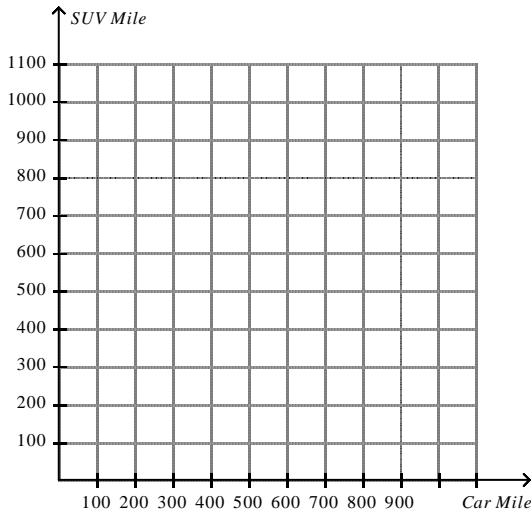


Problem 5.4

Part A

1. Graph the inequality $0.75c + 1.25s < 600$. This graph shows the possible (car miles, SUV miles) pairs for which the total CO₂ emissions are less than 600 pounds per month.



2. On the same axis, graph the inequality $s > 2c$. This graph shows the possible (car miles, SUV miles) pairs for which the number of SUV miles is more than twice the number of car miles.
3. Where on the grid are the points that satisfy both conditions?

Part B

Nancy has a car and an SUV with the same emissions as Vince's family's vehicles. She will drive her car at least three times as much as her SUV. She wants to limit the total CO₂ emissions to at most 400 pounds per month. She draws the following graph.

Insert graph from p. 77

1. Describe what information the points in each region represent in terms of the situation.
2. In which region(s) are the points that satisfy both conditions?