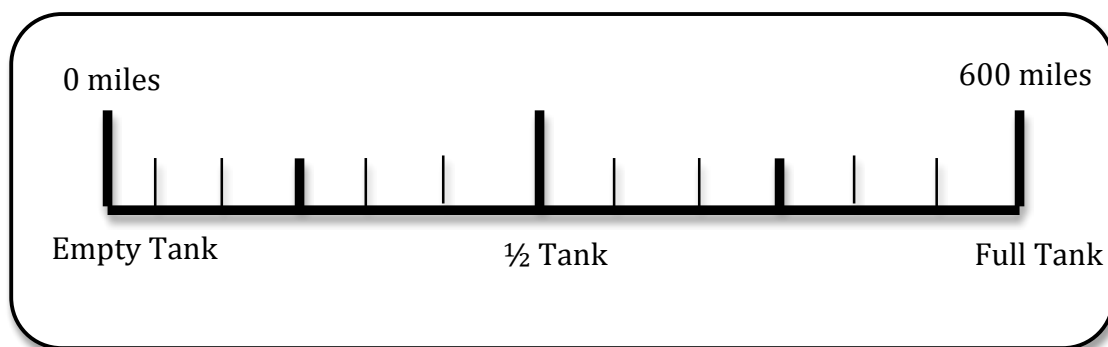


Fuel Gauge Problem

Frank runs a business called Frank's Fresh Farm Produce. Once a week he drives north of the city to farms where he buys the best possible fresh produce for his customers. Frank can travel 600 miles on a full tank of gas. His truck has a fancy, accurate fuel gauge.



Usually Frank has time to visit only one farm on each trip, but one week he decides to visit both Stan's and Louisa's farms. When Frank drives from his store to Stan's farm and back, he knows he uses $\frac{5}{12}$ of a tank of gas. When he drives to Louisa's farm and back, he uses $\frac{1}{3}$ of a tank. From a map of the area, he learns that there is a road from Stan's farm to Louisa's farm that is 120 miles long. He realizes that he can drive from his store to Stan's farm, then to Louisa's farm, and then back to his store in one loop.

Frank can tell by looking at his fuel gauge that he has $\frac{5}{8}$ of a tank of gas. Can he drive this loop without having to stop for fuel? Or should he buy gas before he starts his trip?