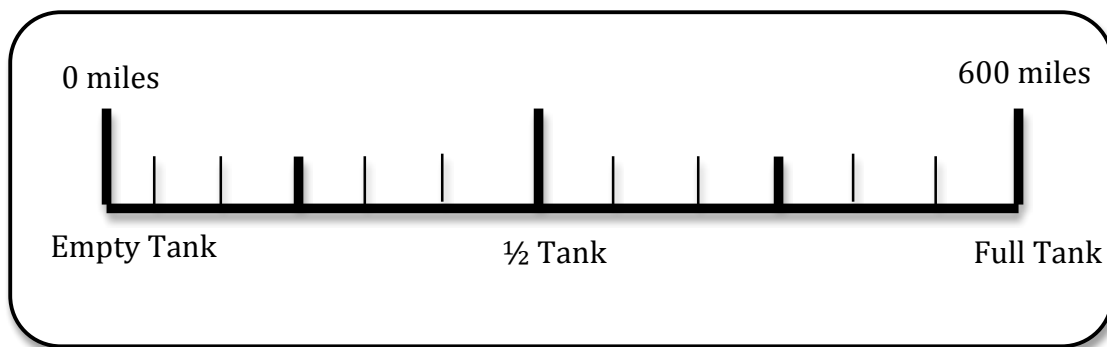


Fuel Gauge Problem

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.



When Frank drives from his store to Stan's farm and back, he knows he uses $\frac{5}{12}$ of a tank of gas.

Stan's Farm

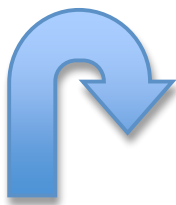


Frank's Store

$\frac{5}{12}$ of a full tank of gas

When he drives to Louisa's farm and back, he uses $\frac{1}{3}$ of a tank.

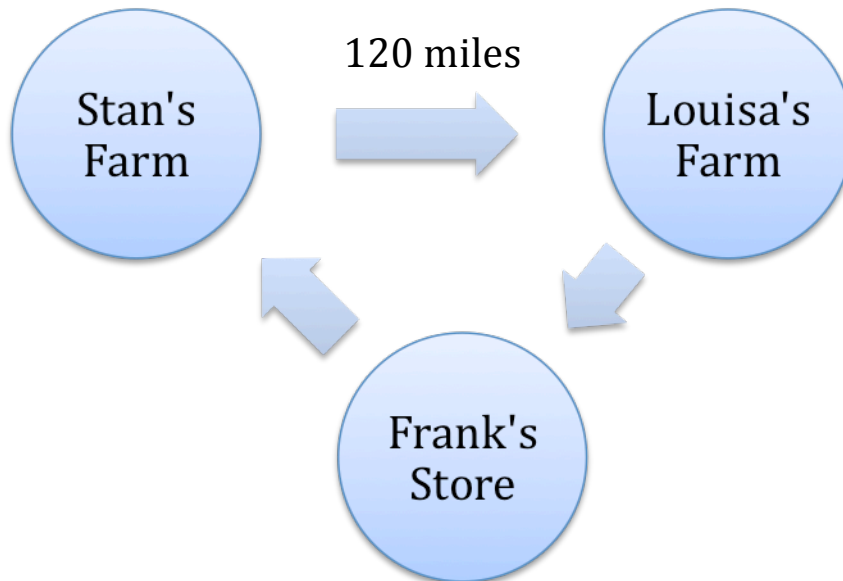
Louisa's Farm



Frank's Store

$\frac{1}{3}$ of a full tank of gas

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.



Before he leaves, **Frank can tell that he has $\frac{5}{8}$ of a tank of gas**.

Can he drive this loop without having to stop for gas? Or should he buy gas before he starts his trip?