Solution Wolff exercise 2.9

A straight forward approach is the following. Let $2a$ be the total number of miles of the trip. The gas consumption R will be $R = \frac{a}{40} + \frac{a}{20} = \frac{3a}{40}$. To obtain the mileage we get $\frac{2a}{R} = \frac{80}{3}$.