

Lesson One: Fuel Cost and Fuel Economy

When you own a car, one of the largest related expenses is **fuel**. Fuel is the gasoline (or diesel) needed to go anywhere. The cost of fuel is rising, and is not expected to drop. This lesson will examine the cost of fuel, and related topics.

Example 1

You are on a road trip. You are having fun, but your car is almost out of gas! You pull into a station that has this sign:



Your car requires 67 litres of gasoline to fill its tank. You see that the price on the sign says '117.9'. What will it cost to fill your tank?

TAXES
ARE
INCLUDED
IN THE POSTED
PRICE.

$$\begin{aligned} \text{TOTAL cost} &= \# \text{ of Litres} \times \text{cost per litre} \\ &= 60 \text{ litres} \times 117.9 \text{ cents/litre} \\ &= \boxed{\$ 78.99} \end{aligned}$$

Example 2

While filling your tank, you take an odometer reading. At the previous gas station, your odometer read had a reading of 21 747.3 km. The odometer reading now is 22 453.2 km. How far have you driven since the last gas station?

$$\begin{aligned} \text{Distance travelled} &= \text{Initial (first) odometer reading} - \text{Present Odometer reading} \\ &= 22\,453.2 \text{ km} - 21\,747.3 \text{ km} \\ &= \boxed{705.9 \text{ km}} \end{aligned}$$

If you know the *distance driven* in your car, and how much *fuel (in litres)* was used, you can determine your vehicle's fuel economy. **Fuel economy** is defined as the number of litres of gas required to travel 100 km. The smaller the number, the less gas it takes to travel 100 km and therefore, the better the fuel economy. Vehicles with better fuel economy will use less gas – and save you money!