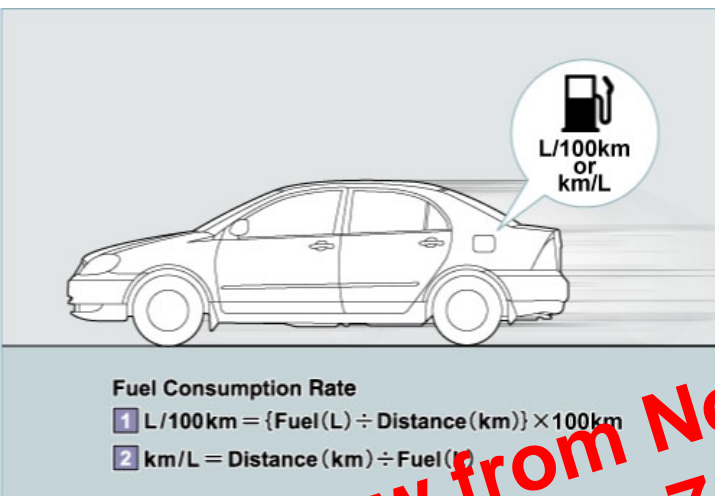


## Performance

### 1. Maximum speed

This represents the vehicle's driving performance. The maximum speed is measured with the gross vehicle weight on a windless, flat, paved road. The measurement is indicated in km/h (mph) units.

(1/4)



### 2. Fuel consumption rate

This represents the volume of fuel that the engine consumes when the vehicle travels a given distance.

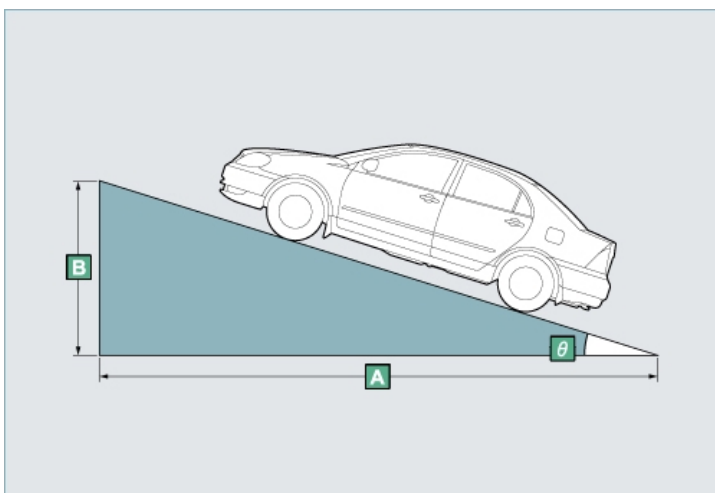
There are two methods for calculating the fuel consumption rate:

- 1 Volume of fuel consumed while traveling a given distance (L/100km)
- 2 Distance traveled while consuming a given volume of fuel (km/L)

#### HINT:

The fuel consumption rate varies considerably depending on the driving conditions at the time of measurement (e.g. weather, engine condition, road gradient, etc.)

(2/4)



### 3. Hill climbing ability

This is the maximum grade that the vehicle can climb with the gross vehicle weight.

- A Distance of horizontal travel
- B Ascending height
- $\theta$  Maximum grade

$$\theta = A / B$$

#### Example:

Where height (B = 20m), and distance (A = 100m),  $20 / 100 = 0.2$  is the maximum grade.

#### HINT:

The vehicle may not be able to actually climb to the maximum grade if the tires and the road surface lack the proper amount of friction resistance.

(3/4)