

A Simple Formula Allows Calculation of Distance

We'll **use a basic formula for stopping**:

$$\text{distance} = \text{velocity}^2 / (2 \cdot \text{acceleration})$$

Here we assume constant deceleration.

In practice, **deceleration** is **limited by traction**—

- friction between the tires and the road surface.
- Depending on the car and tires,
- the limit is **around 7 to 10 m/s²**.

Let's give you a decent car: **8.45 m/s²** deceleration.