

Problem 34

For Problems 34 through 43, draw a complete pictorial representation. **Do not solve these problems or do any mathematics.**

A Porsche accelerates from a stoplight at 5.0 m/s^2 for five seconds, then coasts for three more seconds. How far has it traveled?

Solution

The motion can be split into two parts: one where the Porsche is accelerating and the second where the Porsche is coasting (that is, moving at constant velocity). The dots below represent the car's position at each second. The goal is to determine how far it has travelled after 8 seconds.

