

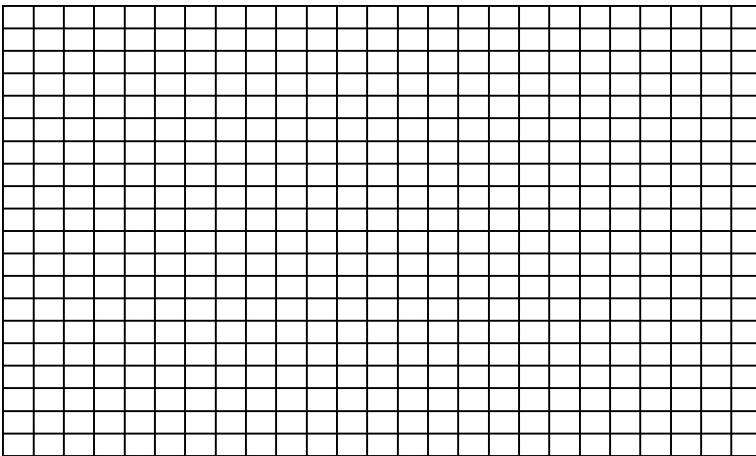
Goal • Practise plotting a position-time graph.

A student leaves home, driving east toward his school, at 9:11 A.M. Arriving at the school, 1.5 km away, at 9:15 A.M., he realizes that the school is closed. It is Saturday! He travels on to the library, 1.5 km east of the school, to return a book. He arrives at the library at 9:25 A.M., drops off the book and continues east for another 0.5 km to his favourite fast-food restaurant, arriving there at 9:28 A.M. He leaves the restaurant at 9:45 A.M., arriving home at 10:00 A.M.

1. Complete the table below. Make sure you are using the correct units.

Part of trip	t_1	t_2	Δt (min)	Δt (s)	\rightarrow d_1	\rightarrow d_2	\rightarrow Δd (km)	\rightarrow Δd (m)
home to school								
school to library								
library to restaurant								
at restaurant								
restaurant to home								

2. Plot a position-time graph for the trip. Choose a proper scale and units for each axis.



- What was the total distance travelled by the student?
- What was the total displacement?
- Calculate the average velocity (in m/s) of the student on his trip home.