

Module 7 Lesson 2

Try This 10 Possible Solutions

Define the Variables

Let x = the time required to drive the first part of the trip. Let y = the time required to drive the second part of the trip.

Organize the Information

	Speed	Time	Distance
First Part of Trip	75	x	
Second Part of Trip	110	y	

Write the Equations

The formula relating speed, time, and distance is $d = st$.

	Speed	Time	Distance
First Part of Trip	75	x	$75x$
Second Part of Trip	110	y	$110y$
Total		$x + y$	$75x + 110y$

The equations of the linear system are as follows:

$$\text{total driving time: } x + y = 5.9$$

$$\text{total distance driven: } 75x + 110y = 600$$