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2.1 2.2 2.3 2.4

2.1 Henri and Emile's Race
Finding the Point of Intersection

In Ms. Chang's class, Emile found out that his walking rate is 2.5 meters per second. That is, Emile walks 2.5 meters every 1 second. When he gets home from school, he times his little brother Henri as Henri walks 100 meters. He figures out that Henri's walking rate is 1 meter per second. Henri walks 1 meter every second.

Problem 2.1

Henri challenges Emile to a walking race. Because Emile's walking rate is faster, Emile gives Henri a 45-meter head start. Emile knows his brother would enjoy winning the race, but he does not want to make the race so short that it is obvious his brother will win.

A How long should the race be so that Henri will win in a close race?

B Describe your strategy for finding your answer to Question A. Give evidence to support your answer.

A C E Homework starts on page 38.

2.2 Crossing the Line
Using Tables, Graphs, and Equations

Your class may have found some very interesting strategies for solving Problem 2.1, such as:

- Making a table showing time and distance data for both brothers
- Graphing time and distance data for both brothers on the same set of axes
- Writing an equation for each brother representing the relationship between time and distance

? How can each of these strategies be used to solve the Problem?