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Assignment: Quiz - Word Problems

Problem 1: "A train leaves a station at 1:00 PM traveling at 60 mph. A second train leaves the same station an hour later traveling at 80 mph on a parallel track. At what time will the second train overtake the first?"

Alex's Setup:

Let t be the time.

Distance of Train 1 = 60t

Distance of Train 2 = 80t

Set them equal: 60t = 80t

This gives t=0. I am confused.

Instructor's Note: Incorrect setup. You need to account for the one-hour head start. The correct setup is 60t = 80(t-1).

Problem 2: "The sum of two numbers is 25. One number is four times the other. What are the numbers?"

Alex's Setup:

x + y = 25

x = 4y

So, 4y + y = 25 -> 5y = 25 -> y = 5. The numbers are 5 and 20.

Instructor's Note: Correct! You did very well on this one.

Problem 3: "A rectangular garden has a perimeter of 44 feet. Its length is 2 feet more than twice its width. Find the dimensions."

Alex's Setup:

P = 2L + 2W

44 = L + W

L = 2 + 2W

My answer is not right.

Instructor's Note: Incorrect initial formula for perimeter. You used L+W instead of 2L+2W in the second step.