

A cross-country skier leaves her home at noon. She skis for an hour with the wind at her back, and then decides to turn around and take the same route home. Now that she is headed into the wind, her speed is 3 miles per hour slower going home than it was in the first hour. She arrives home at 2:30. (The trip took 2.5 hours total.) She wondered how far away she was when she decided to turn back.

Which of these systems of equations can you use to solve this problem?