OPEN RESPONSE: C MOTION & FORCES

A student leaves school and walks south, arriving home after 18 min. The distance between the school and her home is 1200 m. At home, the student realizes she left a book at school. She walks back, arriving at the school 18 min later.

a. Determine the student's average speed as she walks home. Show your calculations and include units in your answer.
b. Describe the difference between the student's average velocity walking home and her average velocity walking back to the school.
c. Calculate the total distance the student walked. Show your calculations and include units in your answer.
d. Determine the final displacement of the student. Explain your answer.