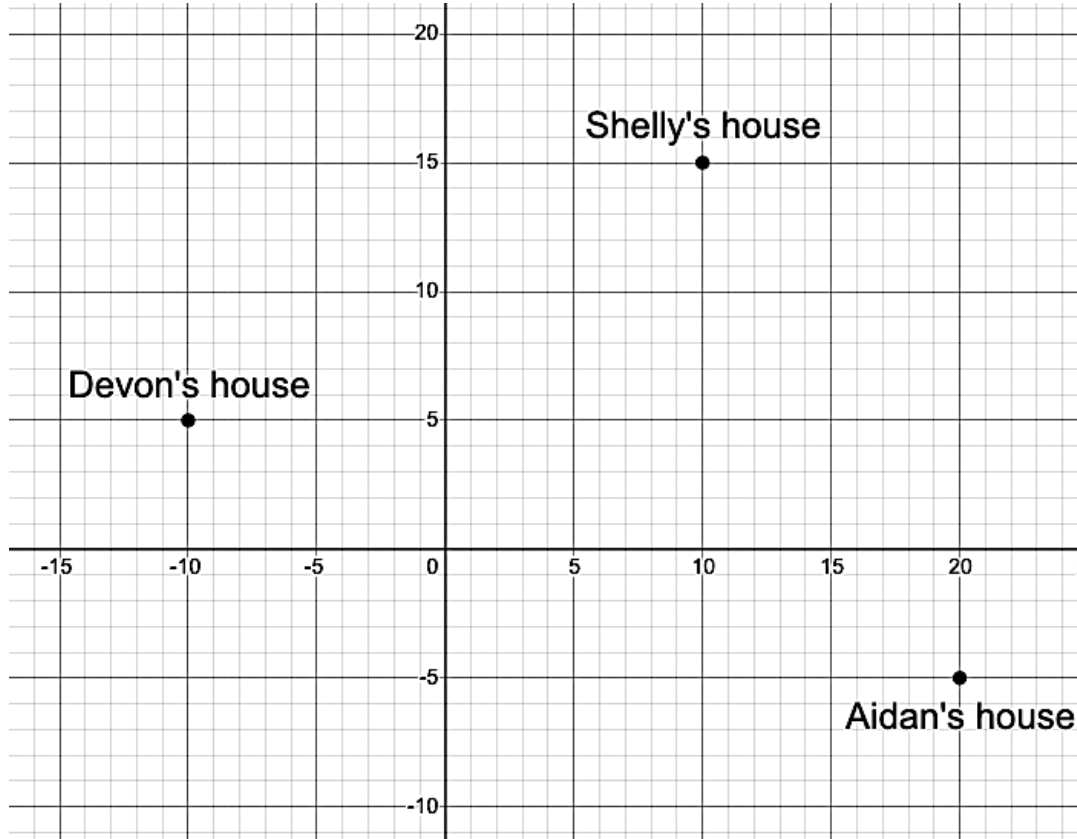


Distance, Midpoint, Division Point Assignment

Name _____

Three friends, Devon, Shelly, and Aidan, all have plans to study and go to a movie after school. Their houses are located on the graph below.



The **library** is located at the midpoint between Shelly's house and Aidan's house.

The **movie theater** is located $\frac{1}{10}$ of the way from Aidan's house to Devon's house.

The **school** is located at a ratio of $\frac{1}{4}$ from Devon's house to the library.

Devon is driving his friends to school, then to the library, the movie theater, and back to his house. Devon takes the following route:

- Devon starts at his own house and drives to Shelly's house to pick her up
- The two friends then drive from Shelly's house to Aidan's house
- All three drive from Aidan's house to school
- The three friends drive from school to the library
- Once they have finished studying, they drive from the library to the movie theater
- After the movie, they all drive from the theater back to Devon's house for dinner

What is the total distance Devon drives?