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## Homework 3-6: Motion

1. Explain the difference between distance and displacement.

Directions: In the figure below, you travel from home at $A$, to the park at $B$, to the store at $C$, to a friend's house at D. Study the map and answer questions 4 through 8.

2. What distance did you travel?
3. When you were at your friend's house at D , what was your displacement?
4. If you leave home at 1:00 and get to your friend's house at 5:00, what was your average speed?
5. If you travel from your house at $A$ to the park at $B$ in $0.5 h$, what is your velocity?
6. Explain why the speed in question 4 didn't equal your velocity in question 5.

