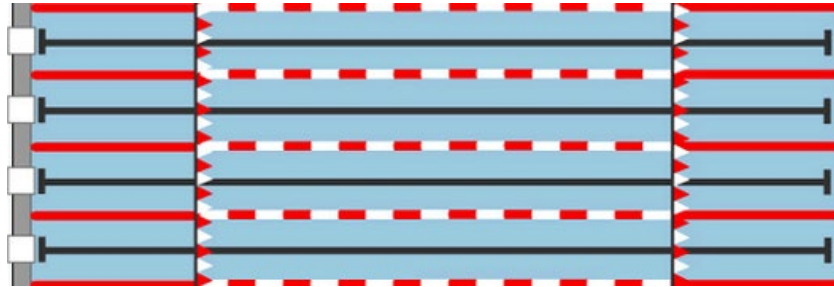


Unit 1: Quiz 15
1-Dimensional Motion

1. A Park View swimmer swims the length of a 25-yard pool in 12 seconds and makes the return trip to the starting position in 14 seconds. Determine her average velocities in the following cases:



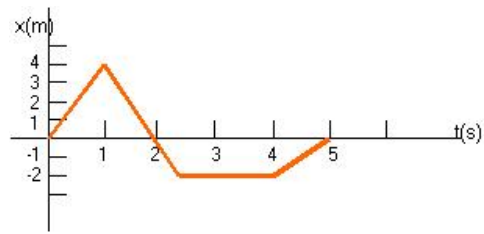
Equation for Average Velocity

$$\text{Average Velocity} = \frac{\text{Displacement}}{\text{Elapsed Time}}$$

$$\vec{V}_{avg} = \frac{\vec{x}_f - \vec{x}_i}{t_f - t_i}$$

- a. The first half of the swim.
- b. The second half of the swim.
- c. The entire swim.

2. A tennis player moves in a straight-line path as shown in the figure below. Find her average velocities in the following time intervals



0 s to 1 s

0 s to 4 s

1 s to 5 s

0 s to 5 s