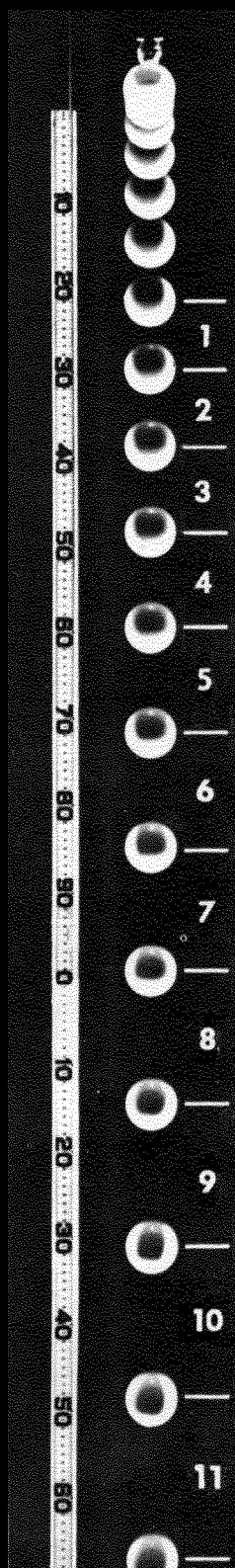


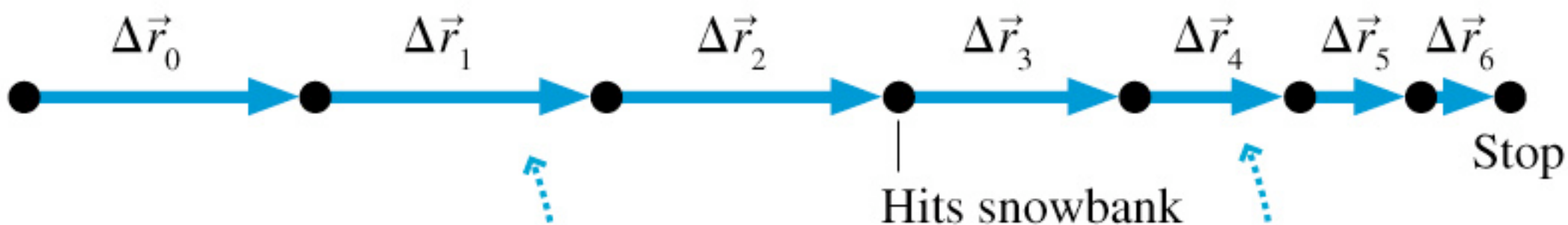
Concepts of Motion

**The goal of chapter 1 is to introduce
fundamental concepts of motion**





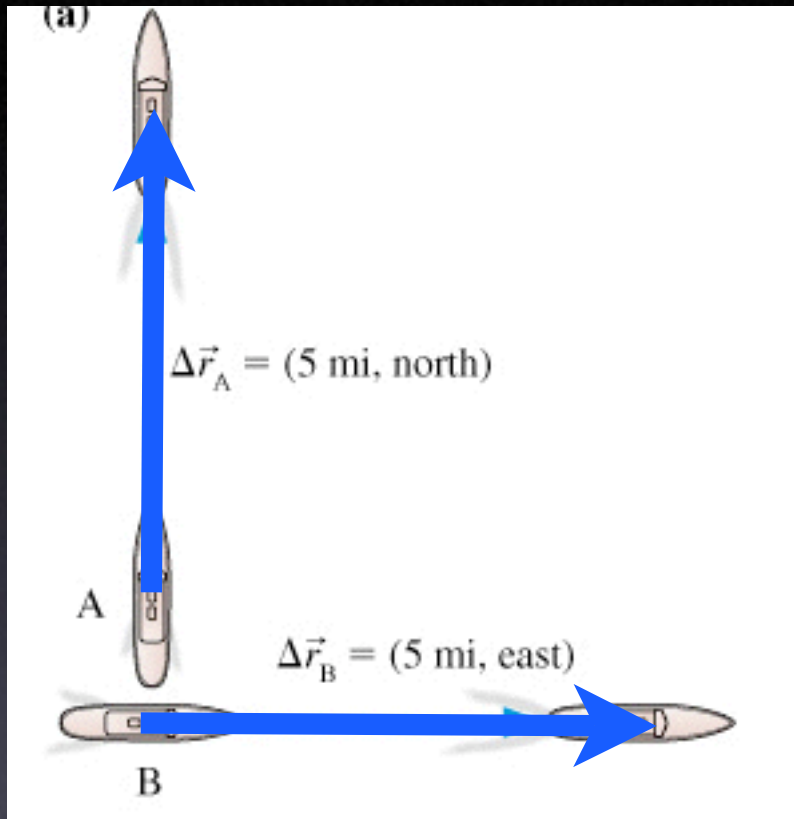




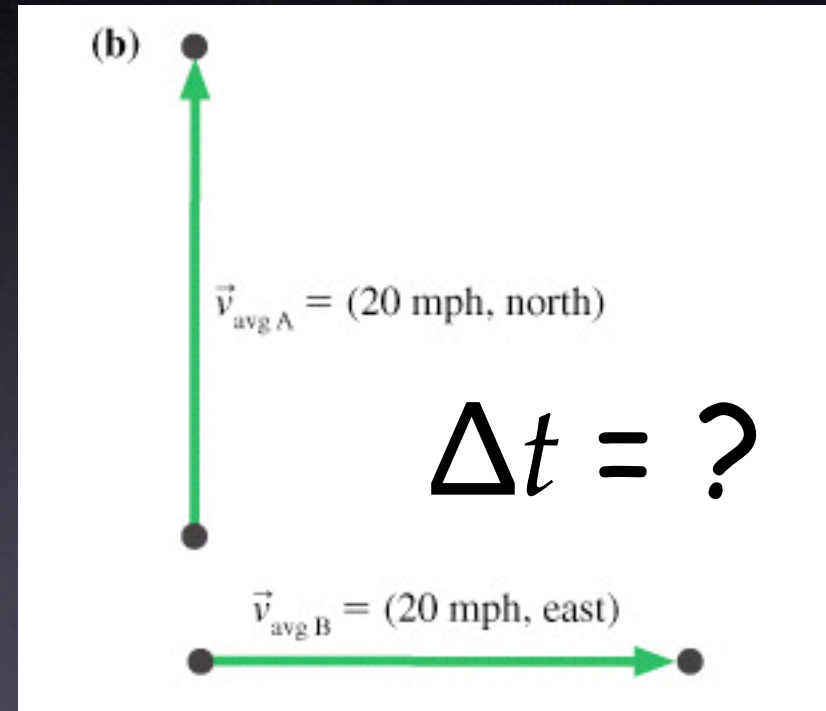
This is motion at constant speed because the displacement vectors are a constant length.

The displacement vectors are getting shorter, so she's slowing down.

Displacement



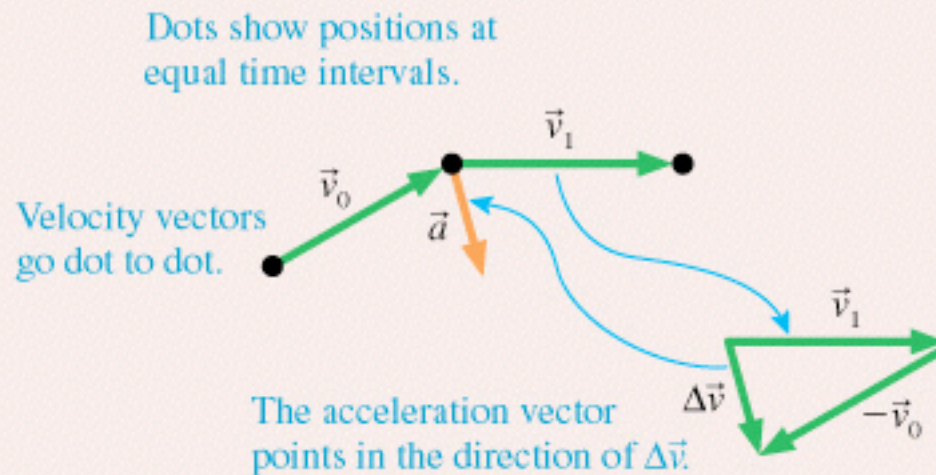
Velocity



General Strategy

Motion Diagrams

- Help visualize motion.
- Provide a tool for finding acceleration vectors.



► These are the average velocity and the average acceleration vectors.

General Strategy

Pictorial Representation

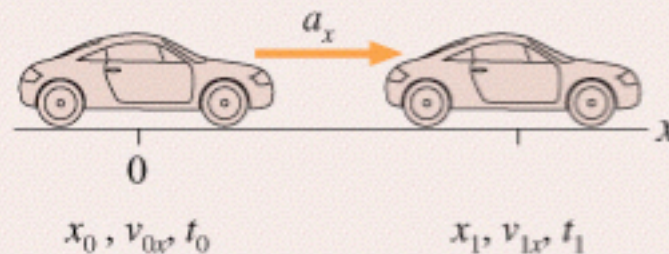
① Sketch the situation.

② Establish coordinates.

③ Define symbols.

④ List knowns.

⑤ Identify desired unknown.



Known

$$x_0 = v_{0x} = t_0 = 0$$

$$a_x = 2 \text{ m/s}^2 \quad t_1 = 2 \text{ s}$$

Find

$$x_1$$