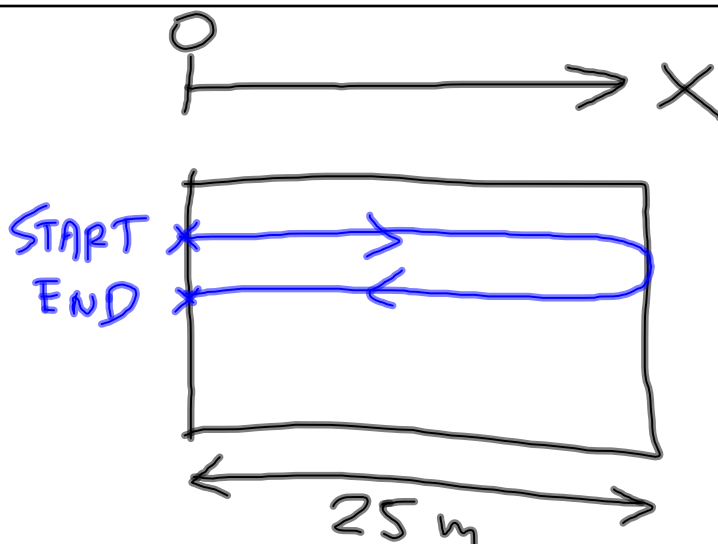


A swimmer swims two lengths of a 25 m long pool in 50 s. Sketch the following:

- x-t (position vs. time)
- v-t (velocity vs. time)
- a-t (acceleration vs. time)
- d-t (distance vs. time)
- s-t (speed vs. time)
- Find v_{avg}
- Find s_{avg}

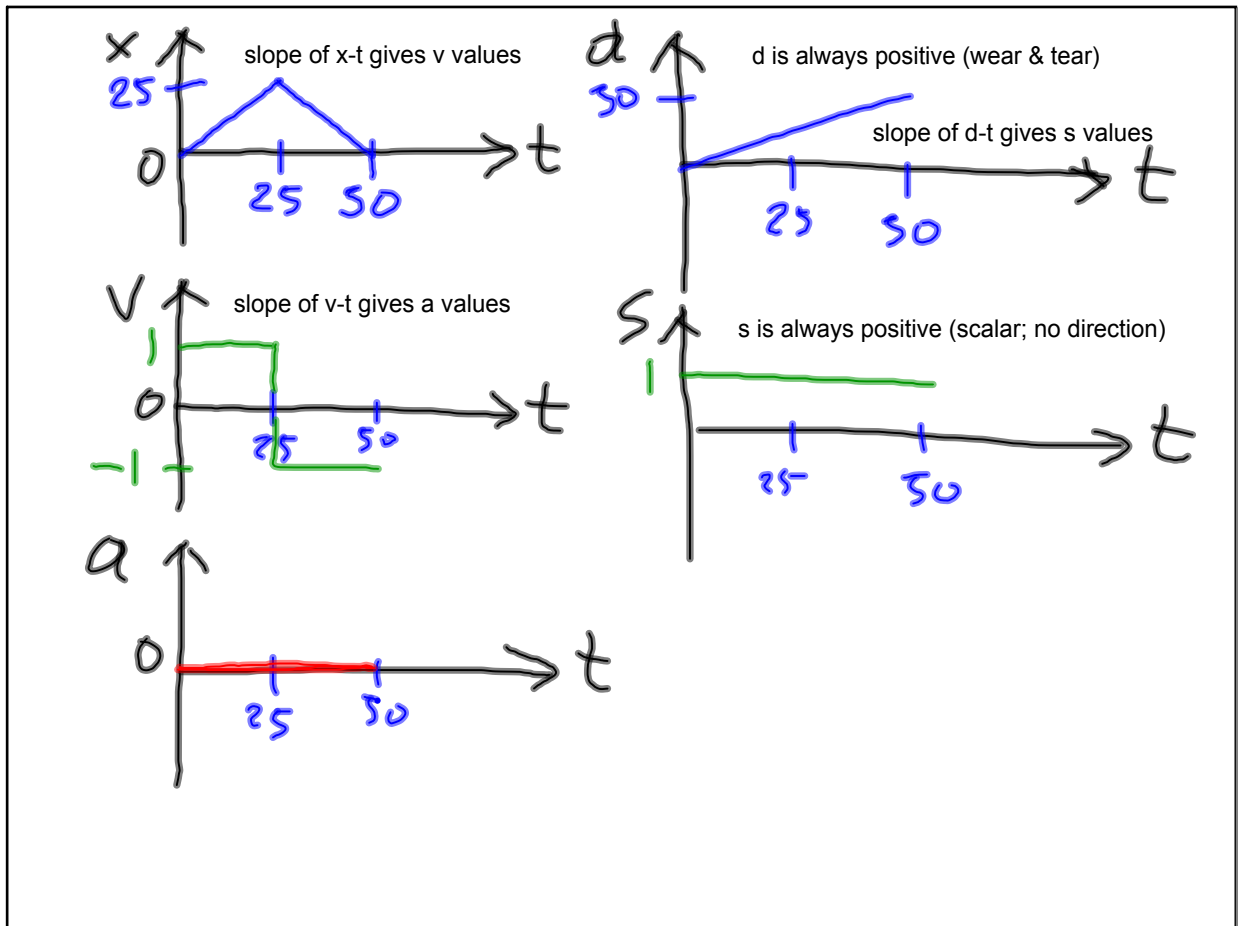
The swimmer does not speed up or slow down; all velocities are instantaneous.

Sep 19-7:34 AM



SKETCH TO ESTABLISH & SHOW THE COORDINATE SYSTEM (A.K.A. FRAME OF REFERENCE).

Sep 19-9:31 AM



Sep 19-9:50 AM

$$f) \quad \bar{v} = \frac{x_f - x_0}{t_f - t_0}$$

$$\bar{v} = \frac{0 - 0}{50}$$

$$\boxed{\bar{v} = 0}$$

$$g) \quad \bar{s} = \frac{\text{Tot. } d}{\text{Tot. } t}$$

$$\bar{s} = \frac{50}{50}$$

$$\boxed{\bar{s} = 1 \frac{\text{m}}{\text{s}}}$$

Sep 19-9:57 AM