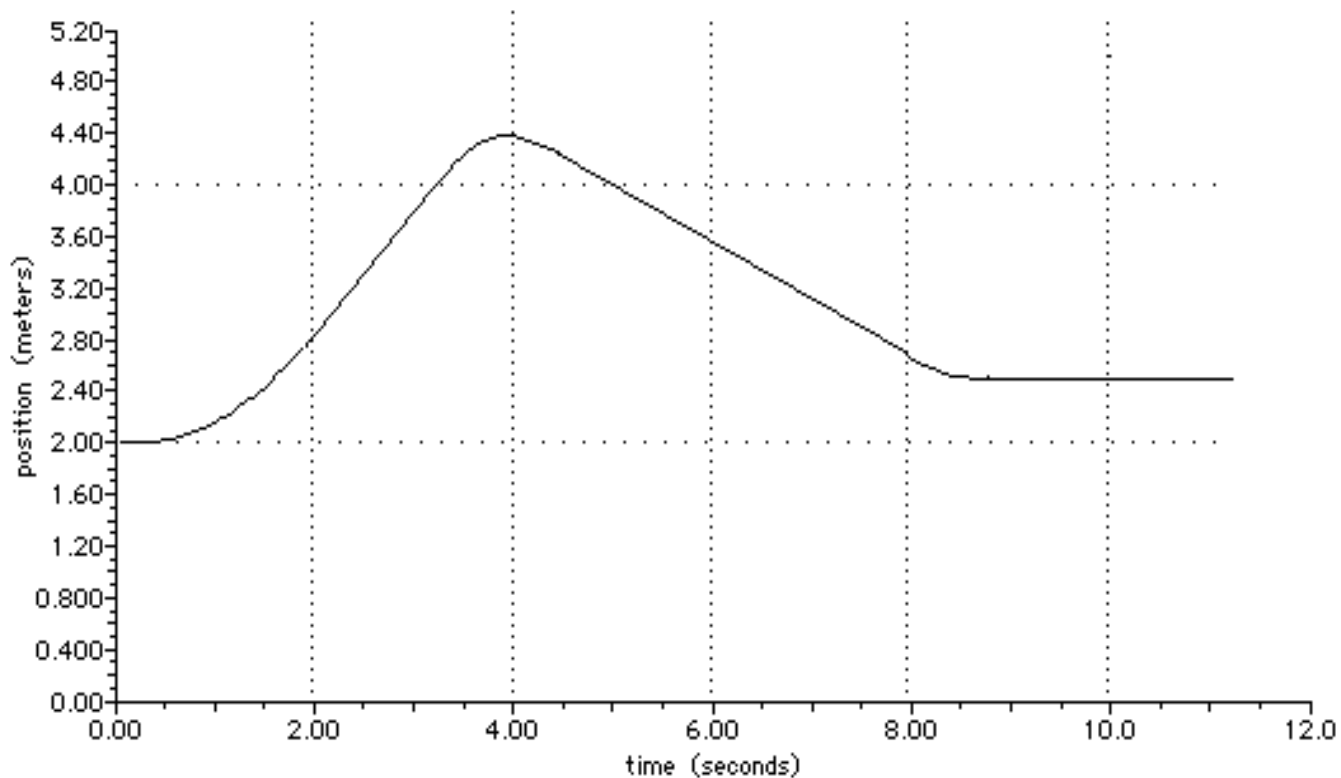


# Calculating Slope of a Line



# Position–Time Graphs

- ▶ The slope represents the average velocity



# Calculating Slope of a Line

$$\text{slope} = \frac{\text{rise}}{\text{run}}$$

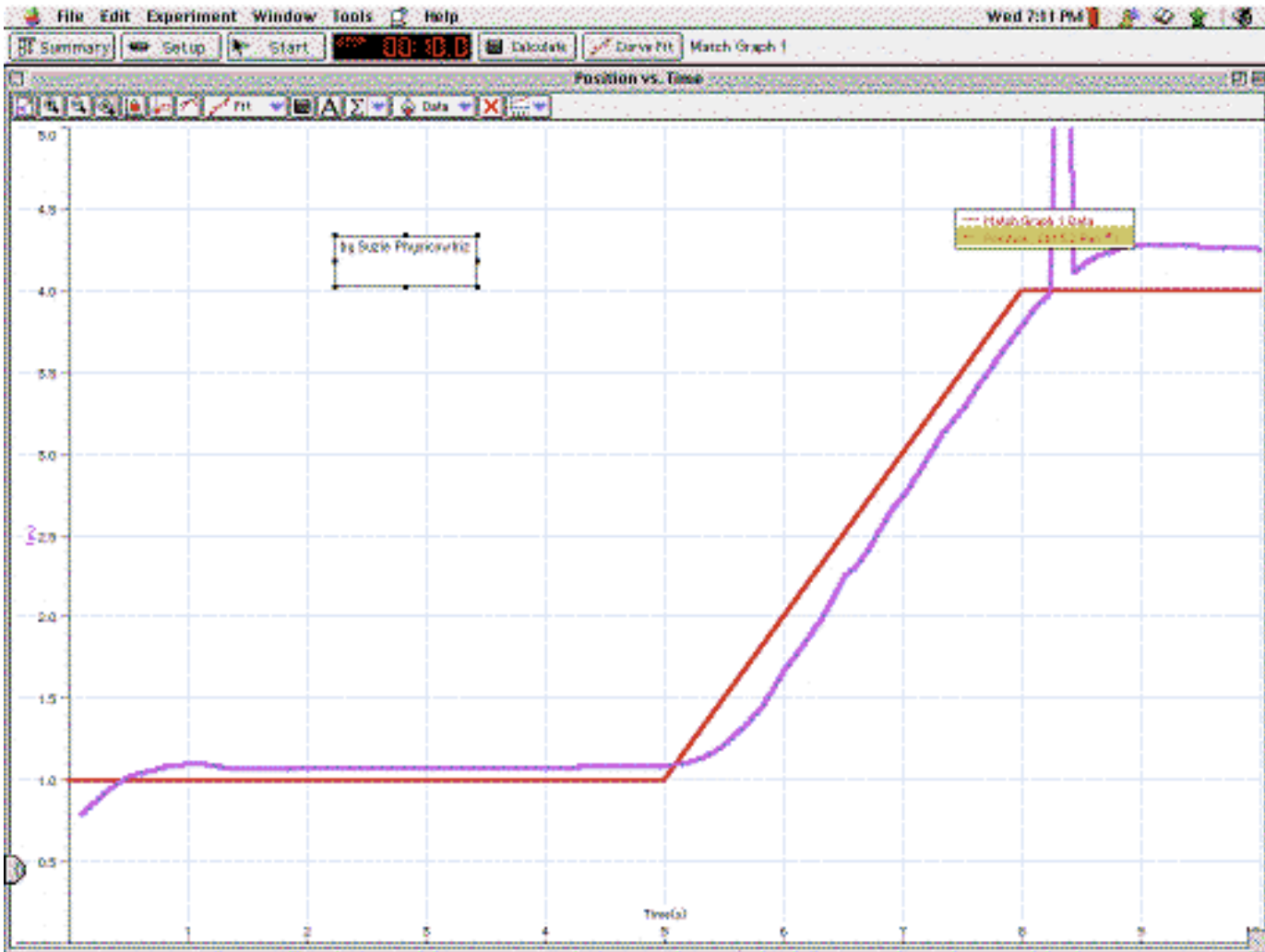
- ▶ “rise” → change in distance
- ▶ “run” → change in time

# Units for Slope

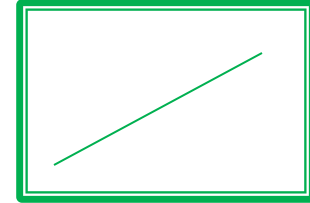
- ▶ If the position is given in meters and the time is given in seconds, then the units will be  $m/s$



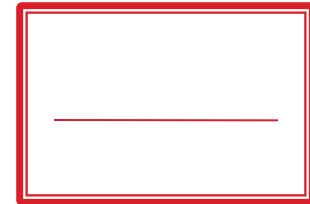
# Position-Time Graph



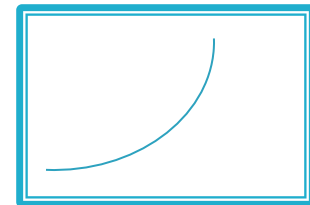
**Straight line = constant slope = constant velocity**



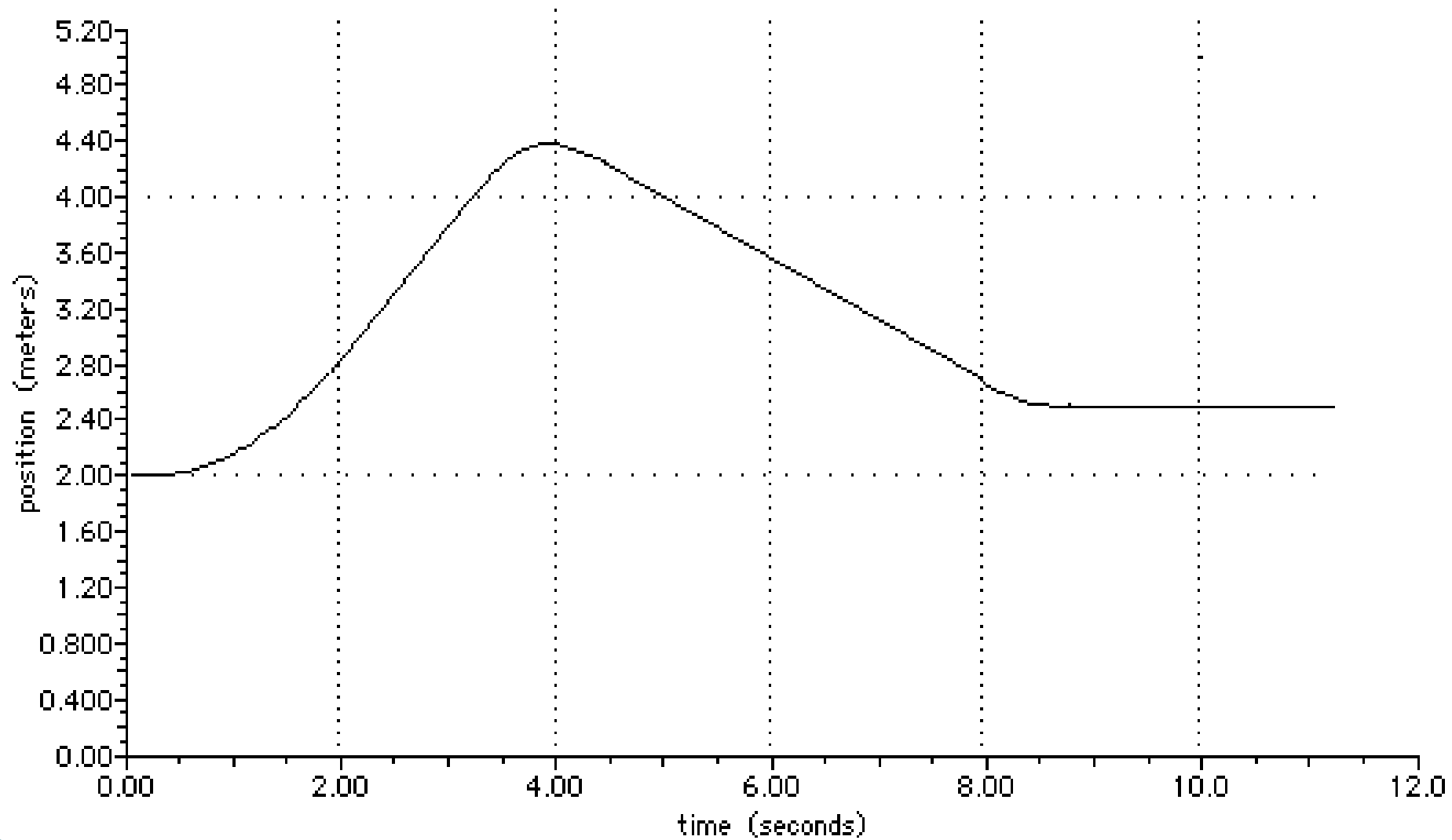
**Flat line = zero slope = zero velocity**



**Curved line = changing slope = changing velocity  
= ACCELERATION**



What time period was this object's velocity decreasing?



# Best fit

