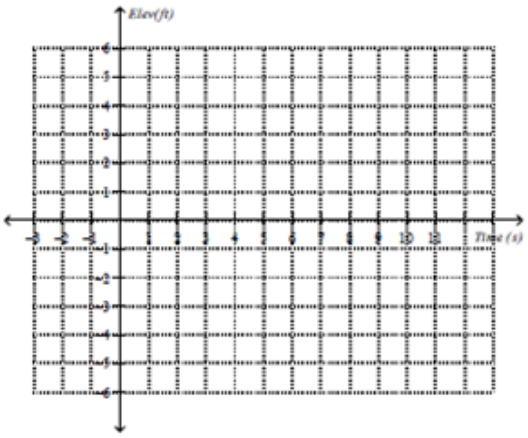
Graph the following situation:

A swimmer climbs a ladder for 2 seconds to a waterslide that is 5 feet high. She sits for 2 seconds at the top of the slide, and then slides 8 feet down the slide into the water in 2 seconds. She stayed steady at the same position underwater for 2 seconds before rising to the surface of the water in 1 second. She remained in the pool for 1 more seconds.



t	D(t)
0	
2	
4	
6	
8	
9	

a. Determine the average rate of change for the swimmer going up the ladder.

b. During what time interval is the average rate of change negative? Find that average rate of change.

c. At what time is the slope zero?

d. Determine when the average rate of change is positive. Find those average rates of change.