Application of Average and Instantaneous Rate of Change

Example: Chevonne kicks a soccer ball off the top of a building that follows the path given by the function $h(t) = -4.9t^2 + 500$, where $h(t)$ is the height, in metres, above the ground after t seconds.

a. Determine the average speed of the soccer ball between 1 second and 5 seconds.

b. Determine the speed of the soccer ball at $t = 4$ seconds.