"Gaitway" to Acceleration Summative Assessment

- 1. What is acceleration?
- 2. How can acceleration be calculated using position vs. time data?
- 3. How can position be calculated using acceleration vs. time data?
- 4. Solve the following problem:

The velocity of a moving person measured at different times is provided in the following table:

time t (s)	0.0	0.2	0.4	0.6	0.8	1.0
velocity ν (m/s)	0.0	0.6	1.0	0.0	-0.2	-0.8

A. Calculate an approximate value for the acceleration of the person at t = 0.6 s. Show your work and justify your methodology.

B. Calculate an approximate value for the change in position of the person during the time interval from t = 0.0 s to t = 1.0 s. Show your work and justify your methodology.