**“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** *v* (m/s) | 0.0 | 0.6 | 1.0 | 0.0 | -0.2 | -0.8 |

1. Calculate an approximate value for the acceleration of the person at *t* = 0.6 s.   
   Show your work and justify your methodology.
2. 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.