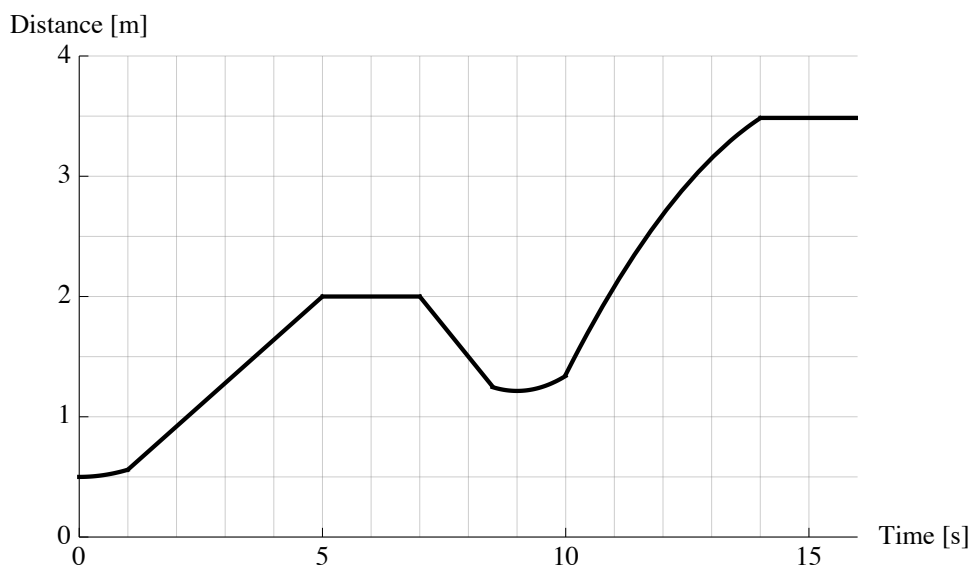


Average Velocity (on a Position Graph)

Part 1

The graph below shows the distance Veronica walked, in meters, as a function of time, in seconds. Use the graph to answer the following questions (be sure to explain how you got your answers):

1. How much time did the walk take?
2. How far did she travel overall?
3. How far from the starting place did she end up?
4. Did she ever stop? If so, when?
5. Did she only walk in one direction?



Part 2

Veronica's friend looked at the graph, and pointed out that she could have saved her energy and walked from her starting place directly to her ending place instead.

1. Using color, draw what the graph would have looked like if she had walked directly from her starting position to her ending position at a constant rate while taking the same amount of time. (Use the graph above to do this.)
2. What would Veronica's velocity have been had she taken this direct route? This rate is referred to as her **average velocity**.
3. Explain the relationship between the graph of Veronica's direct route and her average velocity so that it makes sense to an algebra student.