Figure 1: The above graph depicts the position of a car traveling in a straight line. In the picture, the x-axis denotes time, and the y-axis denotes the position of the car relative to a fixed finish-line (at $y = 0$). Assume that the positive direction is the direction that takes the car away from the finish-line.

1. Does the car begin at the finish line? Explain your answer.

2. Use the graph to estimate the average velocity of the car between the points a and b.

3. At the point b, what direction is the car moving?

4. Describe the position and velocity of the car at the point c.

5. At which point is the car traveling fastest (in either the positive or negative direction)? Explain your answer using the slope of the tangent line.

6. At the point d, what direction is the car moving?

7. At the point d, describe the acceleration of the car. Specifically, does the car have positive acceleration or negative acceleration?