6. [11 points] Link and Boots decided to have a race down a straight portion of Pauline Boulevard that is 1.1 kilometers long. Let \( L(t) \) and \( B(t) \) be Link’s and Boots’s respective distances from their starting point \( t \) seconds after the race began. A graph of \( L(t) \) and \( B(t) \) is shown below.

\[
\begin{array}{c|c|c}
D (meters) & L(t) & B(t) \\
\hline
200 & & \\
400 & & \\
600 & & \\
800 & & \\
1000 & & \\
\end{array}
\]

\[
\begin{array}{c|c}
t (seconds) & \\
40 & \\
80 & \\
120 & \\
160 & \\
200 & \\
240 & \\
280 & \\
320 & \\
\end{array}
\]

(a) [1 point] Who won the race? (Circle your answer.)

- Link
- Boots

(b) [2 points] Estimate the times at which Link and Boots were running at the same speed.

(c) [3 points] Estimate Link’s average velocity over the first 100 seconds of the race. Include units.

(d) [3 points] Estimate Link’s instantaneous velocity 40 seconds after the race began. Include units.

(e) [2 points] 160 seconds after the race began, is Link’s acceleration positive, negative, or equal to zero? (Circle your answer.)

- positive
- negative
- zero