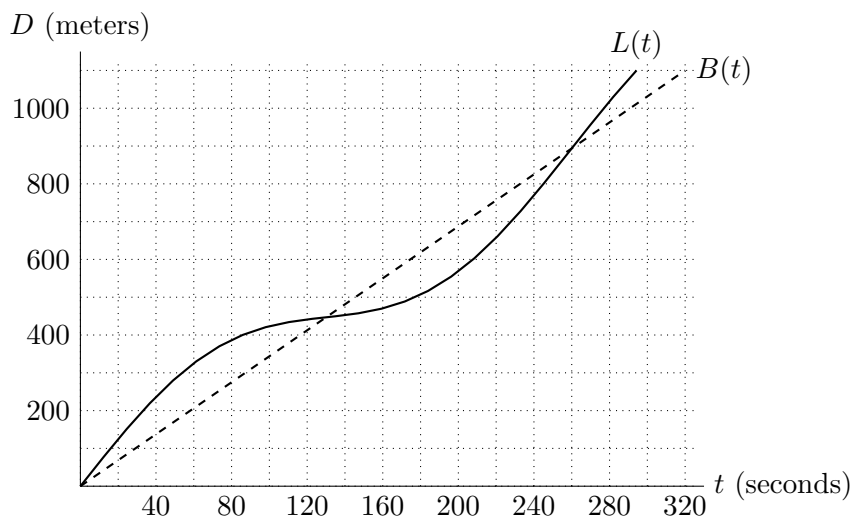


6. [11 points] Link and Boots decided to have a race down a straight portion of Pauline Boulevard that is 1.1 kilometers long. Let $L(t)$ and $B(t)$ be Link's and Boots's respective distances from their starting point t seconds after the race began. A graph of $L(t)$ and $B(t)$ is shown below.



- 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