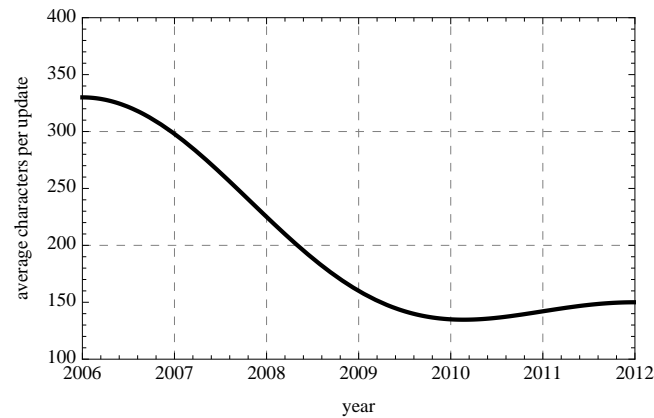


10. [10 points] Facebook tracks the average number of characters used by its users to write their status updates. Below is the graph for a random (talkative) user from the beginning of 2006 to the beginning of 2012. Use the graph to answer the following questions.



- a. [2 points] When were this user's status updates the longest? How long were they?
- b. [3 points] When was the length of the user's status updates decreasing? Increasing?
- c. [2 points] When was the length of status updates shrinking the fastest?
- d. [3 points] Is this function continuous? Is it invertible? Justify your answer.