A private-garage owner is currently charging his customers $1.75 per hour. But he is considering changing the way he prices parkers in an attempt to increase profit. He has identified two distinct market segments for his business: short-term parkers and all-day parkers with respective demand curves (functions) of QS = 600 - 200PS and QA = 400 – 200PA. Here PS and PA are the hourly rates charged to short-term and all-day parkers, respectively, and QS and QA are the number of cars parked at respective prices. The cost associated with adding extra cars in the garage is negligible (thus, maximizing revenues also maximizes profit).

a. Is the owner maximizing revenue (profit) by charging $1.75 per hour?

b. What price should he charge each group if he wants to maximize revenue (profit). What will be the total revenue collected in each market?

  c. Show if total revenue (profit) will indeed increase if different prices (discovered in b) are charged.