1. Arzeye Pharma has a patent, a legal barrier to entry, on its newly developed eye treatment that cures common eye problems. Arzeye Pharma is currently earning positive economic profit and is producing the profit-maximizing quantity of eye treatments.

   (b) Suppose Arzeye Pharma wants to charge a price that maximizes its total revenue rather than its profit.

      (i) On your graph in part (a), show the revenue-maximizing quantity, labeled Q_R.
      (ii) At quantity Q_R identified in part (b)(i), is the demand for eye treatments elastic, inelastic, or unit elastic?

   (c) Suppose now that Arzeye Pharma engages in perfect price discrimination.

      (i) On your graph in part (a), show the lowest price that Arzeye Pharma would charge, labeled P_2.
      (ii) What would happen to consumer surplus? Explain.

   (d) Suppose instead that Arzeye Pharma's patent expires. Will the demand for Arzeye Pharma's treatment become more elastic, become less elastic, or not change? Explain.

Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.