The Monopolistic Competition Model

Below are several questions about the Monopolistic Competition Model in the context of a trade liberalization between the US and Mexico. Take some time and please discuss them with your classmates.

Some information about the widget industry in the US and Mexico: Both countries share the same technological characteristics with consultants from Bain & Company reporting that the fixed cost associated with producing a widget are 75,000$, the variable costs associated with producing a widget are 5$.

Bain also reports demand characteristics of the US and Mexico market: The demand elasticity parameter ``b'' was estimated to be 1/300. Total widget demand in the US was estimated to be 16,000 units and total widget demand in Mexico was estimated to be 9,000 units.

1. Suppose the US market is segmented from the Mexico market (i.e. there is no trade between markets), how many firms operate in the US market? How many firms operate in Mexico? At what prices do they sell their products? How does the US market compare to the Mexican market

2. Suppose the widget market now becomes integrated between the US and Mexico. Calculate the price and average cost for a firm assuming the same number of firms in (1.) operated in the combined market. What does this suggest about how the industry will evolve in the future and why?

3. Compute the long-run equilibrium number of firms and prices charged in the integrated US-Mexico market. How does this situation compare to (1) and (2) above? Why might labor unions be opposed the integration of the US-Mexico widget market?

4. Fast forward to five years later, Bain & Company reports that average productivity of Mexican firms increased substantially after the US-Mexican trade liberalization. What does this suggest about how the Mexican part of the industry changed?