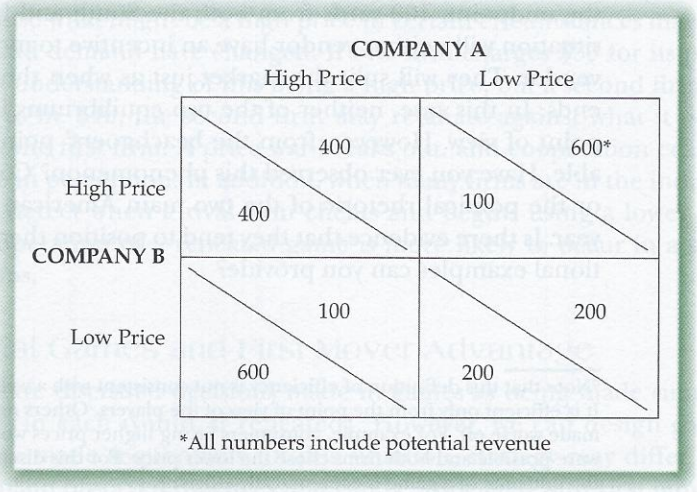
At this point readers might be wondering what the relationship is between alleged criminals and oligopolistic pricing. Instead of alleged criminals, suppose we use two companies competing in a market for a product in which price is a key consideration in the purchasing decisions of consumers. In place of "confess" or "not confess," we can use the options "high price" and "low price." In place of prison sentences, we can use profit.

Figure 11.3 shows two companies, A and B, and the expected revenue that each hopes to gain by charging a high or low price relative to the price charged by the other. It is easy to see that real two-company combinations, such as Coca-Cola and Pepsi-Cola, Dell and Gateway, or Miller and Anheuser Busch, could be used as the A and B companies. As a test of your understanding of the Prisoners' Dilemma, what would be the dominant strategy equilibrium in this version of the game?

If your answer is that both companies would charge the low prices, you would be absolutely right. The low price strategy is a dominant strategy for both firms. However, both firms would prefer to be in the high price/high price situation than in the low price/low price situation. If they both prefer this situation, why was this not the outcome? The problem is that the high price/high price equilibrium is not stable. Once Company B had chosen the high price, Company A would want to change its strategy to the low price. The same holds for Company B; once Company A had chosen the high price, it would want to change its strategy to the low price. Only when both companies have chosen low prices is a stable equilibrium achieved because neither firm would have an incentive to change its strategy on its own. Although the situation in which each company chose high price would be preferred to each choosing the low price, the point of this game is that each would always be thinking of the possibility of the other setting a lower price (i.e., the equivalent of confessing). Therefore, as a sort of "second-best solution," each would choose the more secure situation of the low price, thereby dispensing with the fear of the other gaining an advantage by setting a lower price.

What if we changed the rules to allow them to cooperate? If they could cooperate, they could both choose the high price and both would be better off. This would be *efficient* in that once this equilibrium was achieved there would be no alternative

Figure 11.3 Oligopoly Pricing Using the Prisoners' Dilemma: Payoff Matrix Model



*All numbers include potential revenue