

Price Rivalry

Your team is one of two sellers of a homogeneous, unbranded commodity. We assume that buyers automatically buy from the seller with the lowest price. If both sellers ask the same price, then the buyers will split their purchases equally between the two sellers.

The following table shows *Industry Demand*, how much can be sold in total:

<i>Price</i>	<i>Quantity</i>	<i>Sales Revenue</i>
\$9	0	\$0
\$8	1	\$8
\$7	2	\$14
\$6	3	\$18
\$5	4	\$20
\$4	5	\$20
\$3	6	\$18
\$2	7	\$14
\$1	8	\$8
\$0	9	\$0

So if you price at \$4 and the other team at \$5, then you make all the sales, to sell 5 units with a sales revenue of \$20. There is an average cost of \$2 per unit, so that your profit will be $\$20 - 5 \times \$2 = \$10$. The aim of the exercise is to maximise your total profits over the periods.

Each period your team and the other selling team will simultaneously choose a price to ask of buyers, without communicating with the other team. Write your price down. You have 30 seconds to decide on your price. As soon as both teams have submitted a price, the papers are collected, the prices announced, and the instructor will calculate your team's profits and the profits of the other team for that period, and will write both out on the overhead.

There will be one practice round to make sure everyone understands how the interaction works.

Then we shall keep repeating the above process until the instructor announces the end of the interaction. Your profits will be totalled over the periods of interaction.

The Two Hauliers

The players are the presidents of two competing trucking companies. They can choose to send their trucks along normal routes or risky routes. The risky routes are winding, mountainous roads that cut down on travel time if there is little traffic, but if other trucking firms begin to use them, then they are very unprofitable. Normal routes entail less risk and typically lead to moderate financial returns when you both use them..

Route		Profit (\$)	
You	Other Firm	You	Other Firm
normal	normal	200,000	200,000
risky	normal	600,000	-100,000
normal	risky	-100,000	600,000
risky	risky	-400,000	-400,000

You are both aware of the risky and normal routes. You both know too that you both know them. You cannot collude with each other, since that's illegal. You learn which route the other firm has taken soon after you've chosen (irreversibly) your route.

- a. Draw up the 2×2 payoff matrix for this interaction.
- b. In your designated team, play repeatedly, after one practice round.

