Problem 1

AMD is deciding whether to enter a market of Intel.
If it enters, Intel can decide to fight or accommodate.
The game has the following payoff matrix with profits in $B:

		Intel	
		fight	accommodate
AMD	enter	−2; 10	10; 13.5
	stay out	0; 20	0; 23.5

1. What is the subgame perfect equilibrium of the game?
2. Each production facility Intel costs 2 (reduces its payoff if it fights or accommodates), but increases Intel's profit by 1 if it decides to fight. How many facilities does Intel build (only an integer number allowed)?

Problem 2

Price elasticity of demand for a flight service between two cities is -2.
There are 4 firms with equal cost functions in a Cournot equilibrium.

What is the ratio of price to marginal costs of these firms?

Problem 3

Two firms produce an identical product.
The firms have constant marginal costs of \$1 and zero fixed costs.
Market demand for this product is $q = 6\,000 - 1\,200p$.
Both firms can easily change prices.
A firm charging a lower price sells the entire market quantity.
If they charge equal prices, each firms serves a half of the market.

1. What is the name of the model?
2. What is the Nash equilibrium of this game? Explain.
   What are the quantities and profits of the firms?
3. What happens if one of the firms introduces an innovation that
   reduces its costs by \$0.5?