

Student's name	
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TASK 1. (max. 4 points)

Using supply-and-demand diagrams, show the effect of the following events on the market for skis. Describe what happens to the equilibrium price and equilibrium quantity, if:

- There is a huge shortage of very important component needed to production of ski on the market.
- The price of ski passes increases rapidly.
- There is education campaign in media promoting skiing as a healthy life style.
- The binding price floor has been imposed.

TASK 2. (max. 4 points)

Calculate:

- Price elasticity of demand, when demand curve is described by the following linear function: $P=1000-4Q_d$, where P is the price and Q_d is the quantity demanded. The price rises from 200 euro to 800 euro. Use the midpoint method. What can you say about this demand?
- Cross-price elasticity of demand for good x , if the quantity demanded for this good has increased by 20% in reaction to price decrease of good Y from 2000 euro to 1000 euro? Are goods X and Y substitutes or complements? Explain.
- Income elasticity of demand, knowing that when the income has decreased by 40%, quantity demanded of good has increased from 200 units to 240 units. What kind of good is it?

TASK 3. (max. 4 points)

Supply and demand curves are described as $Q_s=6+P$ and $Q_d=14-P$, respectively (where P is the price, Q_s is the quantity supplied and Q_d is the quantity demanded). The government has imposed the \$2 tax for each unit of sold good.

- Draw a supply-and-demand diagram of the market without tax. What is the equilibrium price and quantity?
- Draw a supply-and-demand diagram of the market with the tax. What is the price paid by the buyers, the price received by sellers. Who bears the most of the burden of the tax? Has the quantity sold decreased or increased? What is the government tax revenue?

TASK 4. (max. 4 points)

Consider total cost and total revenue given in the table below:

Quantity Q	Total cost TC	Total revenue TR
0	8	0
1	9	8
2	10	16
3	11	24
4	13	32
5	19	40
6	27	48
7	37	56

- Calculate profit for each quantity. Calculate marginal revenue and marginal cost for each quantity. Graph them.
- How much should the firm produce to maximize profit and why?
- Can you tell whether this firm operates in a competitive market? If so, can you tell whether the industry is in a long-run equilibrium (has zero-economic profit)?

TASK 5. (max. 4 points)

A large share of the world supply of diamonds comes from Russia and South Africa. Suppose that the marginal cost of mining diamonds is constant at \$1000 per diamond, and the demand for diamonds is described by the following schedule:

Price [\$]	quantity
8000	5000
7000	6000
6000	7000
5000	8000
4000	9000
3000	10000
2000	11000
1000	12000

- If there were many suppliers of diamonds, what would be the price and quantity?
- If there were only one supplier of diamonds, what would be the price and quantity?
- If Russia and South Africa formed a cartel, what would be the price and quantity? If the countries split the market evenly, what would be South Africa's production and profit? What would happen to South Africa's profit if it increased its production by 1,000 while Russia stuck to the cartel agreement?
- Use your answer to part (c) to explain why cartel agreements are often not successful.