

Econ 107 Midterm 2, May 11, 2025

120 minutes. Closed notes and books. Turn off cell phones. No Questions. Keep your eyes on your exam. Show your work-- answers without work will not get any credit. If a question requires an explanation, responses without reasoning will not receive credit.

1	2	3	4	5	6	Total
18	16	16	24	16	10	100

1 Consider wheat (bugday) producer using labor and physical capital (tractors).

- labor costs; wages, are: $w = 8$ TL/worker/week (e.g. workers)
- capital costs, (rents), are: $r = 2$ TL/tractor/week (e.g. tractors)

The following table gives the maximum quantity (in kilograms: kg) produced at various labor and capital combinations in the short-run. q is quantity of wheat produced. Fill in the empty columns in the table.

No. of workers (L)	No. of tractors (K)	(q in kg)	MP_L	FC	VC	TC	MC	ATC
0	2	0						
1	2	4						
2	2	9						
3	2	11						
4	2	12						

2. Suppose short-run marginal cost of a producer in a perfectly competitive market is given by $MC(q)=4q$. Fixed cost is 6 TL. Short-run average variable cost of this producer is given by $AVC(q)=2q$. Market price is 12TL/unit

a. How much will this firm produce in the short run? What are the producer's profits?

- b. Draw the marginal revenue curve, marginal cost curve, average variable cost curves on the same graph, with quantity produced on the horizontal axis. Which point on your graph indicates price and quantity supplied?

3. Discuss how high fixed costs can create barriers to entry and lead to the dominance of large firms or monopolies in an industry. In your discussion provide relevant examples.

4. Consider each of the following markets. For each, identify the most appropriate market structure (perfect competition, monopolistic competition, oligopoly, or monopoly) and explain your reasoning with economic analysis beyond simply counting the number of firms.
 - a. Market for GSM operators in Turkey.

 - b. Market for social media in the world.

 - c. Market for petrol in the world.

 - d. Market for restaurants in Turkey.

6. Consider the following demand and supply curves in the market for electricity produced using coal (kömür). Price is given in TL/unit and quantity is given in units. Electricity production using coal has a negative externality of 1.5 TL per unit. Show the competitive equilibrium quantity and the socially efficient quantity on your graph.

