

Sample Quiz

ENVIRON 805K Environmental Economics

Each sub-question is worth of 10 points. The quiz is for 20 minutes. You don't need to derive the final numbers.

1. Please illustrate the aggregation of demand for rival and non-rival goods using graphs. Assume the society has two individuals.
2. Assume that the gasoline market is perfectly competitive. the demand function for gasoline is $Q^d = 6 - 2P$ and the supply function is $Q^s = P$. Please answer the following questions:
 - (a) What is the competitive equilibrium?
 - (b) What is the consumer surplus?
 - (c) What is the producer surplus?
3. Please briefly explain the first fundamental theorem of welfare economics.
4. A pollution facility causes an environmental damage of 0.5 million USD per year. The facility will operate from year 0 to year 10. What is the present value of the total damage cost?