

Econ 301 Discussion - 12/1/2023

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Content Review

- Partial equilibrium welfare
- Producer and consumer surplus
- DWL, Taxes, price controls

Practice Questions

1. Market demand is $D(p) = 20 - p$ and supply is $S(p) = 4p$. What is the welfare maximizing quantity? Find the consumer, producer and total surplus in the competitive equilibrium.

2. Market demand is $D(p) = 20 - p$ and supply is $S(p) = 4p$. Suppose the government imposes a per unit tax of $\tau = \$5$. Find the government revenue and resulting deadweight loss.

3. Market demand is $D(p) = 20 - p$ and supply is $S(p) = 4p$. Now suppose instead of a tax, the government imposes a price floor of $\bar{p} = \$12$. Draw a diagram to represent deadweight loss associated with the price floor if it is supported by a deficiency payment, versus if it is supported by purchases of excess supply.

4. **Challenge:** Market demand is $D(p) = 2 - p$ and supply is $S(p) = \sqrt{p}$. Find the consumer and producer surplus. (Hint: $\int_0^a x^n dx = \frac{a^{n+1}}{n+1}$)