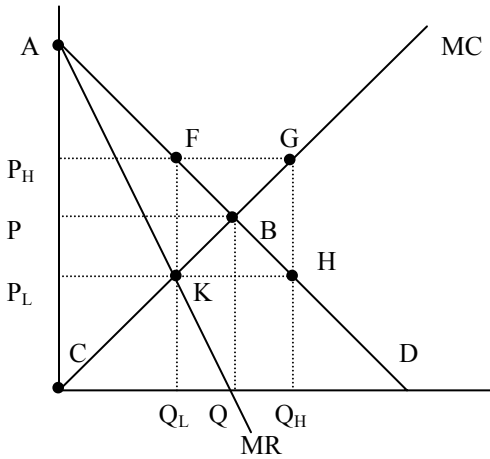


Questions 1-3 refer to the following: below is a diagram which shows the demand curve (D), marginal revenue curve (MR), and marginal cost curve (MC) of a price searcher.



1. If the price searcher shown in this figure is a cartel comprised of otherwise independent firms, so that the schedule (MC) is actually the horizontal summation of their individual marginal cost curves, the price and output that will maximize the cartel's profit are:

- a. **P_H and Q_L**
- b. P and Q
- c. P_L and Q_H
- d. P_H and Q_H
- e. P_L and Q_L

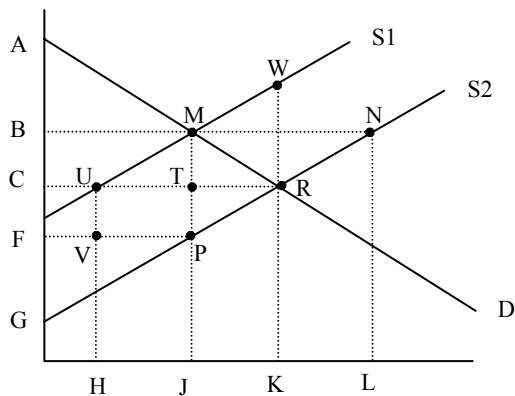
2. If this cartel were to collapse, the resulting equilibrium price would be shown by:

- a. 0
- b. P_L
- c. **P**
- d. P_H
- e. A

3. Cartels are said to cause a dead weight loss. The source of this loss is the fact that cartels

- a. don't minimize costs
- b. don't maximize profits
- c. **restrict output below the rate at which $P = MC$**
- d. produce too much output
- e. produce where $P = MC$

Questions 4 – 6, refer to a per-unit tax levied on suppliers, and illustrated below.



4. After the tax is imposed, the price that suppliers receive, and the equilibrium quantity, respectively, are shown by
 - a. B, J
 - b. B, L
 - c. **F, J**
 - d. F, K
 - e. C, K

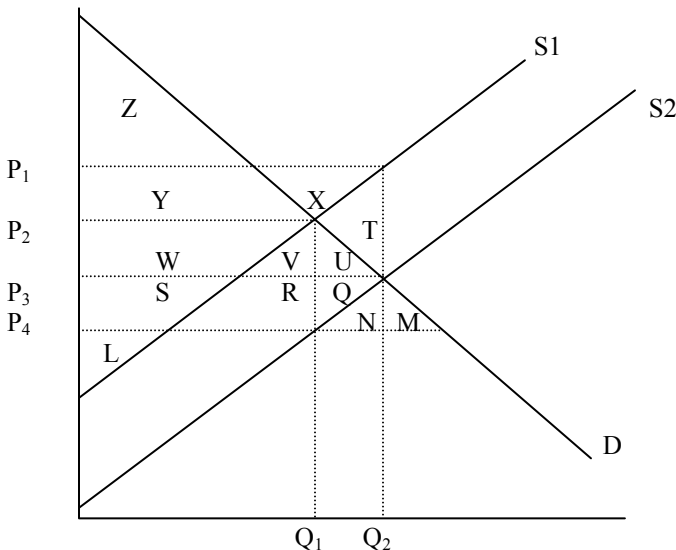
5. For the situation drawn above, which of the following statements is true?
 - a. the price that consumers pay increases by exactly than the amount of the per-unit tax, \$t.
 - b. **the price that suppliers receive decreases by less than the amount of the per-unit tax, \$t**
 - c. consumers pay the entire burden of the tax
 - d. both (a) and (c)
 - e. none of the above

6. The deadweight loss (efficiency loss) caused by the tax is shown by the area
 - a. MRW
 - b. FWG
 - c. BMRPF
 - d. BMPF
 - e. **None of the above**

7. Compared to a situation with an elastic demand curve, a per-unit tax on a good with an inelastic demand curve will result in
 - a. a smaller amount of tax revenue collected
 - b. a smaller consumers' burden
 - c. **a smaller producers' burden**
 - d. both (a) and (b)
 - e. both (a) and (c)

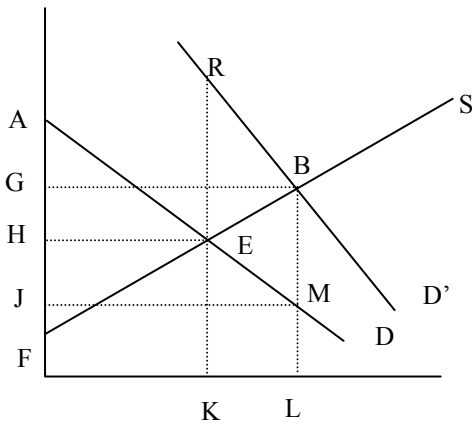
8. Suppose a per-unit tax is levied on a good with a perfectly inelastic supply curve. In this case
 - a. consumers will pay the entire burden of the tax
 - b. producers will pay the entire burden of the tax
 - c. the price that consumers pay will not change as a result of the tax
 - d. both (a) and (c)
 - e. **both (b) and (c)**

Questions 9 – 11 are based on the graph where a per-unit subsidy is given to suppliers.



9. After the subsidy is imposed, the price that consumers pay (P_C) and the price that suppliers receive (P_S) are given by, respectively
- P_1, P_3
 - P_3, P_1**
 - P_4, P_2
 - P_2, P_4
 - P_2, P_2
10. The dead weight loss is given by
- $M + N$
 - $U + Q$
 - X
 - T**
 - None of the above
11. The area that shows the amount of money paid out (spent) by the government on the subsidy is
- $Q + R + S + U + V + W$
 - $M + N + Q + R + S$
 - $U + V + W + X + Y$
 - $T + U + V + W + X + Y$**
 - None of the above
12. Suppose the activity of “sunbathing” generates external benefits (perhaps because people enjoying looking at sunbathers, but do not have to pay for the privilege to do so). A government policy that would tend to encourage the efficient level of sunbathing would be
- a tax on the producers of sunbathing
 - a subsidy for the producers of sunbathing**
 - a government limit on the maximum amount of sunbathing that can occur
 - a tax on sun tan lotion, an input into the production of sunbathing
 - both (b) and (c) are correct

Questions 13 – 15 are based on the accompanying diagram. The line labeled D shows the marginal private benefits of consuming kumquats and the line labeled S shows the market supply of kumquats. The act of eating kumquats generates external benefits enjoyed by persons other than the consumers of the kumquats. When those external benefits are added onto the private benefits, the result is the line D', which shows the marginal social benefits of kumquat consumption. Suppose that kumquat consumers are unable to identify which people enjoy the benefits, and so are unable to make those people pay them for those benefits.



13. Under these conditions, what will be the equilibrium price and quantity of kumquats?
- H and K**
 - F and K
 - J and L
 - H and L
 - G and K
14. What is the socially efficient level of kumquat consumption?
- L**
 - K
 - H
 - G
 - A
15. Suppose (miraculously?) that the government is able to identify the magnitude of the external benefits created by kumquat consumption. The government begins subsidizing kumquat consumption by paying consumers a fixed amount per kumquat consumed. How big should the per unit subsidy be to induce the efficient rate of consumption of kumquats? (Note: The lines D and D' are not parallel).
- RE
 - BL
 - EK
 - BM**
 - RK

Questions 16-19 refer to the following information. Monty Burns would like to make vests out of animals (gorillas' chests) in his special facility in the middle of Springfield, which he can sell for \$10 each at the local specialty shop. The slaughtering process inflicts damage on his neighbor, Mr. Smithers, as he has to hear the animals being slaughtered and this disturbs him.

Vests / year	Marginal Private Costs	Marginal Damages (Marginal External Costs)
1	\$2	\$2
2	\$4	\$2
3	\$6	\$2
4	\$8	\$2
5	\$10	\$2
6	\$12	\$2
7	\$14	\$2
8	\$16	\$2

16. The socially efficient rate of clothing production by Monty Burns is
- 0
 - 4**
 - 5
 - 6
 - 8
17. If all of the conditions of the Coase Theorem are met, and Monty is not allowed to produce clothing unless he has Smithers's permission, how many vests will be produced?
- 0
 - 4**
 - 5
 - 6
 - 8

18. In order to facilitate the outcome that you have just described in #17, which of the following must happen?
- Monty Burns must make a \$2 side payment to Smithers.
 - Monty Burns must make a \$8 side payment to Smithers.**
 - Smithers must make a \$2 side payment to Monty Burns
 - Smithers must make a \$8 side payment to Monty Burns
 - No side payments are required
19. Suppose, instead, that Mayor Quimby steps in and decides to levy a per-unit tax on Mr. Burns to solve the externality problem. What is the appropriate size of this per-unit tax?
- \$0
 - \$4
 - \$8
 - \$10
 - none of the above**
20. Which of the following is true if all of the conditions of the Coase Theorem hold?
- The initial allocation of property rights will not affect the ultimate use of resources.
 - Resources will be used in the “best” (highest valued) way.
 - The parties involved will be indifferent about who is given the initial property rights to the resources.
 - All of the above
 - only (a) and (b)**
21. Suppose that the activity of sailing generates external costs (perhaps because people on the shore are torn by jealousy as they watch the boats sail by.) Which of the following is true?
- the amount of sailing is below the efficient level
 - the price of sailing should be increased to generate an efficient amount of sailing**
 - the efficient price of sailing is infinitely high, i.e. all sailing should be prohibited
 - society’s wealth would definitely rise if sailing were prohibited
 - both (c) and (d)
22. Which of the following is true about Superfund?
- Fewer than 10% of the nation’s Superfund sites have been cleaned up.
 - 99.5% of the cancer cases that will be averted from EPA efforts are prevented by the first 5 percent of the agency’s expenditures.
 - The average cost per cancer case averted by the EPA expenditures is \$11.7 billion per case.
 - Instead of cleaning up the most dangerous sites, the EPA is cleaning up the sites that get the most bad press.
 - All of the above**
23. Generally, the most effective way firms can prevent competition amongst themselves is to
- hold secret meetings in smoke filled rooms
 - get the government involved in preventing competition among them**
 - promise each other they won’t compete
 - announce publicly that they will all be charging the same price from now on
 - make sure they keep their prices secret from one another when they are bidding on the same job
24. To help minimize the costs of disposing of garbage, and thus make the most of our scarce resources, we should
- require all municipalities to dispose of their own trash in the same area it is generated
 - keep the price of garbage disposal as low as possible – perhaps even subsidizing it
 - treat garbage like we do other goods, in the sense of allowing free trade in trash so that people bear the full costs of their garbage disposal**
 - have only governments engage in trash pickup and disposal
 - all of the above

Questions 25– 27 are based on the following information about a town called Congressville, where there are three residents (called senators). There are two proposals being considered: one will give all senators who served in the armed forces immunity from any accidental deaths caused by soldiers under their command. The second proposal will give all senators immunity from any accidental deaths to passengers caused by cars crashing into bridges when drunk driving. Listed below are the net (after-tax) benefits that each senator enjoys if each of the policies is implemented.

	Military	Drunk Driving
Bob Kerrey (BK)	\$12	\$-3
Ted Kennedy (TK)	\$-5	\$15
Strom Thurmond (ST)	\$-8	\$-13

25. When considering the military proposal (on its own), who is the median voter, and does the proposal pass?
- BK, it passes
 - BK, it doesn't pass
 - ST, it passes
 - TK, it passes
 - TK, it doesn't pass**
26. It is possible for both proposals to be passed via a logrolling situation?
- Yes, as BK agrees to trade his vote on Military in exchange for TK's vote on Drunk Driving.
 - Yes, as TK agrees to trade his vote on Military in exchange for BK's vote on Drunk Driving.**
 - Yes, as TK agrees to trade his vote on Military in exchange for ST's vote on Drunk Driving.
 - No, logrolling cannot get both proposals passed
 - No, because Strom Thurmond can't stay awake long enough to vote
27. Suppose we change Bob Kerrey's value of the drunk driving proposal to \$-8. It is possible for both proposals to be passed via a logrolling situation?
- Yes, as BK agrees to trade his vote on Military in exchange for TK's vote on Drunk Driving.
 - Yes, as TK agrees to trade his vote on Military in exchange for BK's vote on Drunk Driving.**
 - Yes, as TK agrees to trade his vote on Military in exchange for ST's vote on Drunk Driving.
 - No, logrolling cannot get both proposals passed
 - No, because Strom Thurmond can't stay awake long enough to vote

Short Answer

#1 (5 pts), #2 (6 pts), #3 (3 pts), #4 (3 pts), #5 (2 pts)

- Why are cartels inherently unstable?

Each individual member has an incentive to cheat. At $qC, P > MC$. Expand output...
- Why is it difficult for private (non-government) companies to provide public goods?

You must mention free riders and non-excludability. If we can't exclude the non-payers, there will be an incentive to free ride, conceal your willingness to pay,
- Gasoline powered motorboats create an external cost, as they pollute the air. Do you agree with the following statement? Why or why not?

"It would be economically efficient to prohibit the use of gasoline powered motorboats."

You should disagree. It is efficient to produce where $MSB = MSC$. The efficient level of pollution is not zero.

4. What does non-rival mean? Give an example of a non-rival good.

If one person consumes a little more of a good, it does not affect the amount of the good available for others. Examples include a movie theatre, a football game (both assuming that you're not obstructing someone else's view), NPR, national defense.

5. How did Native American obtain the property right to bison?

Kill them.