ECON 101
QUIZ 3

Note: ALL VERSIONS OF THE QUIZ ARE ON THIS PAGE, IN NUMERICAL ORDER.

Economics 101
Quiz 3
Version 1 - Yellow

Instructions: Answer each of the **six** questions. Using **pencil**, mark your answers on the answer sheet provided. Print your name and student number clearly on the answer sheet. Fill in the bubbles corresponding to your student number, leaving the last two boxes blank.

Keep this copy of the quiz - turn in only the answer sheet.

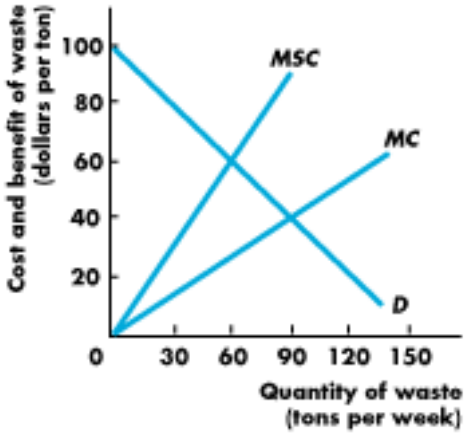
There are several versions of this quiz (each version is a different color). You are allowed and encouraged to collaborate with others to solve the quiz questions, so long as each person with whom you collaborate has a different version of the quiz. You are also welcome to work the quiz on your own.

1. My version of the quiz is
   a. Version 1 – Yellow
   b. Version 2 – Purple
   c. Version 3 – Green

2. Which of the following is NOT an example of a negative externality?
   a. Publicly provided K-12 education.
   b. Production and consumption of sports cars.
   c. A power plant is authorized to set up next door to your house.
   d. Your neighbor's house has been foreclosed upon and is now an eyesore.

3. Sammy just graduated from college and his grandmother wants to give him a monetary present. She gives him two options: he can have $2,000 today or $2,100 in two years. You tell him he should take the $2,000 today if:

   a. $2{,}000 \geq \frac{2{,}100}{(1+r)}$
   b. $2{,}000 \geq 2{,}100\ (1+r)$
   c. $2{,}000 \geq \frac{2{,}100}{(1+r)^2}$
   d. $2{,}000 \geq 2{,}100(1+r)^2$

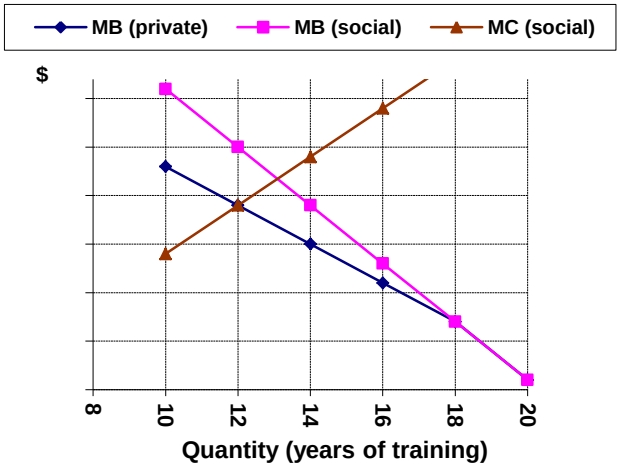


4. A factory disposes of waste into a local waterway that water skiers use. The figure shows the demand curve, private marginal cost (MC) and marginal social cost (MSC) curves that the factory faces. If there is no regulation of the waterway, then the factory will dump _____ tons of waste a week into the waterway.

a. 0
b. 60
c. 90
d. as much as possible

5. Suppose the marginal social benefit of employing an additional security officer in order to curb drug-trafficking at Miami International Airport is $15,000, while the marginal social cost of employing the officer is $25,000. In this instance, the airport authority should

a. hire the additional officer since the airport gets a benefit from hiring him or her
b. not hire the additional officer since the marginal cost is lower than the marginal benefit
c. hire the additional officer since the cost is only $15,000
d. not hire the additional officer since the marginal cost is higher than the marginal benefit



6. The graph above shows the market for a job training program, where MC (social) represents the social supply curve and reflects the full social marginal costs of training. MB (private) is the private demand curve and represents the private marginal benefits of the work-related training. MB (social) is the social demand curve and represents the social marginal benefits of training. Given the situation depicted in the graph,

a. Without intervention, the market will generate the socially optimal level of training
b. Without intervention, the market will generate too great a level of training from a social efficiency perspective
c. Without intervention, the market will generate too low a level of training from a social efficiency perspective
d. Without intervention, the market won't generate any training

Economics 101
Quiz 3
Version 2 - Purple

Instructions: Answer each of the **six** questions. Using **pencil**, mark your answers on the answer sheet provided. Print your name and student number clearly on the answer sheet. Fill in the bubbles corresponding to your student number, leaving the last two boxes blank.

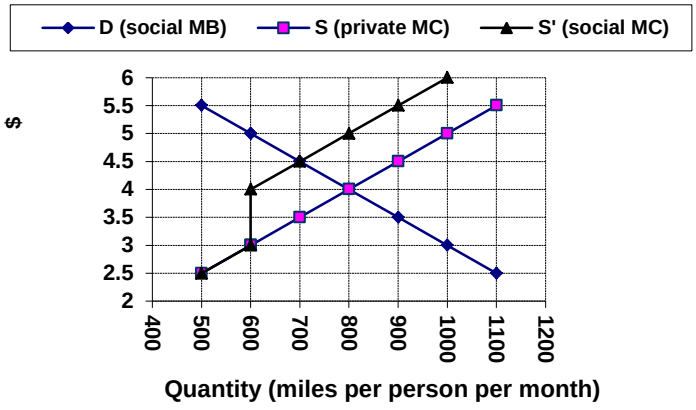
Keep this copy of the quiz - turn in only the answer sheet.

There are several versions of this quiz (each version is a different color). You are allowed and encouraged to collaborate with others to solve the quiz questions, so long as each person with whom you collaborate has a different version of the quiz. You are also welcome to work the quiz on your own.

1. My version of the quiz is
   a. Version 1 – Yellow
   b. Version 2 – Purple
   c. Version 3 – Green

2. Which of the following is NOT an example of a positive externality?
   a. Vaccinations.
   b. Higher levels of education.
   c. Your partner on this quiz has studied economics much more than you have.
   d. Flying first class.

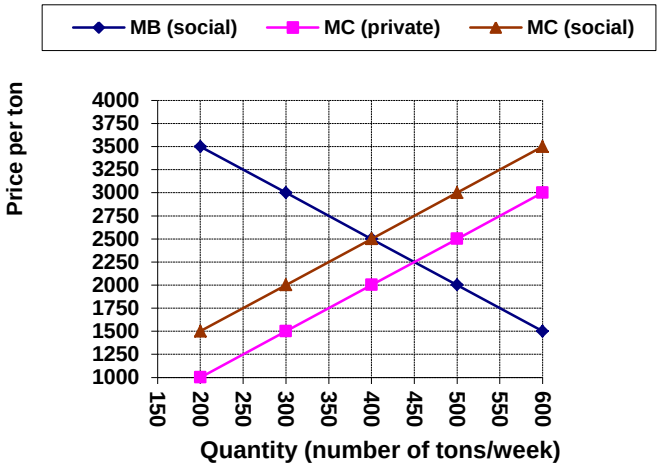
3. John works at an internet start-up company and his boss offers him two options for his bonus check. He can take $10,000 today or he can have $15,000 in five years. He should take the $15,000 if:
   a. $10{,}000 \geq \frac{15{,}000}{(1+r)}$
   b. $10{,}000 \geq 15{,}000(1+r)^5$
   c. $10{,}000 \leq \frac{15{,}000}{(1+r)^5}$
   d. $10{,}000 \leq 15{,}000(1+r)^5$



4. Suppose that the graph above illustrates the marginal benefits and costs of car travel, where S represents the private supply curve (private marginal costs) and S' represents the social supply curve and reflects the full social marginal costs of car travel (social marginal costs). D is the demand curve and represents the social marginal benefits of car travel. In the absence of government intervention, car travel will be
   a. 600 miles per person per month
   b. 700 miles per person per month
   c. 800 miles per person per month
   d. Between 700 and 800 miles per person per month

5. When production of a product causes pollution, we know that in the absence of government intervention, the producer's decision

a. will result in economic equity
b. will result in economic efficiency
c. will result in a positive externality
d. will result in an overproduction of the product from a social welfare perspective



6. Suppose that the market for fried chicken is shown in the graph above, where MC (private) represents the private supply curve and MC (social) represents the social supply curve and reflects the full social marginal costs of production. MB (social) is the demand curve and represents the private and social marginal benefits of fried chicken production. The gap between MC (social) and MC (private) represents

a. The difference between the private and social benefits of fried chicken consumption
b. The negative externality associated with fried chicken production and consumption.
c. The difference between the market price of fried chicken and the actual private cost involved in producing fried chicken
d. Deadweight loss.

Economics 101
Quiz 3
Version 3 - Green

Instructions: Answer each of the **six** questions. Using **pencil**, mark your answers on the answer sheet provided. Print your name and student number clearly on the answer sheet. Fill in the bubbles corresponding to your student number, leaving the last two boxes blank.

Keep this copy of the quiz - turn in only the answer sheet.

There are several versions of this quiz (each version is a different color). You are allowed and encouraged to collaborate with others to solve the quiz questions, so long as each person with whom you collaborate has a different version of the quiz. You are also welcome to work the quiz on your own.

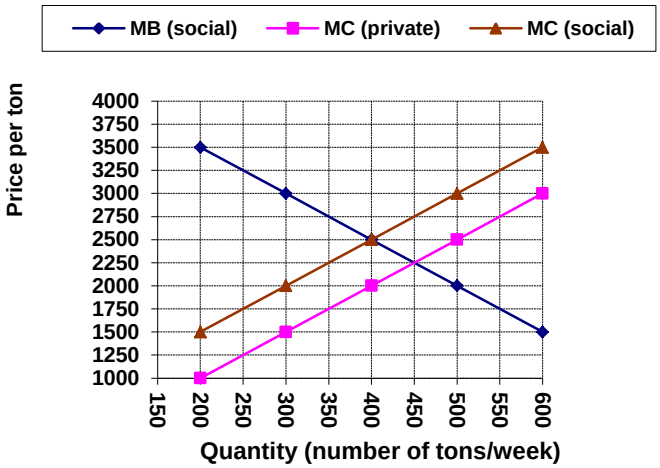
1. My version of the quiz is
   a. Version 1 – Yellow
   b. Version 2 – Purple
   c. Version 3 – Green

2. Which of the following is an example of a negative externality?
   a. Your dog barks and it annoys you.
   b. Your neighbors throw a loud party next door which keeps you up all night.
   c. Traffic congestion on the freeway extends your commute by 1 hour.
   d. Both b and c are correct.

3. Susan is buying a new car. She has enough money to pay for it now, but is trying to decide if it is a good financial decision. The car dealership has two policies: she can buy it today for $20,000 or pay $30,000 in ten years. She should pay $20,000 for the car today if:
   a. $20{,}000 \leq \frac{30{,}000}{(1+r)^{10}}$
   b. $20{,}000 \leq 30{,}000\ (1+r)^{10}$
   c. $20{,}000 \geq \frac{30{,}000}{(1+r)^{10}}$
   d. $20{,}000 \geq 30{,}000(1+r)^{10}$

Cookies	Marginal Social Cost	Marginal Private Cost	Marginal Social Benefit
100	120	100	140
120	130	110	130
140	140	120	120
160	150	130	110

4. Nicole's Bakery produces delicious deep-fried cookies, but in doing so, Nicole (the head chef) throws all of the used cooking oil on the farm next door, causing local crops to fail. Above is a table depicting the number of cookies produced, the marginal private cost of the bakery's cookie production, and the marginal social benefit associated with a specific number of cookies. The marginal social benefit captures the full societal benefits of production (and is the same as marginal private benefit). Using this table, the private equilibrium is ____ cookies and the social equilibrium is _____ cookies.
   a. 140; 120.
   b. 120; 140.
   c. 120; 160.
   d. 160; 120.



5. Suppose that the market for ice cream is shown in the graph above, where MC (private) represents the private supply curve and MC(social) represents the social supply curve and reflects the full social marginal costs of production. MB(social) is the demand curve and represents the private and social marginal benefits of ice cream production. From an efficiency standpoint, the socially optimal level of production is _____ tons per week at a price of _____ per ton.

a. 450; $2750
b. 400; $2000
c. 400; $2500
d. 450; $2250

6. When deciding between taking a payment today or a payment in one year, you are most likely to take the payment today if:

a. The interest rate is very high.
b. The interest rate is very low.
c. You would never take the payment next year.
d. The interest rate is 0.