

ECNS 101-1 FINAL EXAM

Instructions: Answer each of the questions. Print your name and student number clearly on the answer sheet. Fill in the bubbles corresponding to your student number, leaving the top box blank (or inserting a dash there) and filling in the "0" bubble in the top row. **NO CALCULATORS!!! USE PENCIL ONLY!**

1. My version of the exam is
 - a. Version 1 – Yellow
 - b. Version 2 – Purple
 - c. Version 3 – Green
 - d. Version 4—Pink
 - e. Version 5—White

2. If the demand for tea decreases, the equilibrium price
 - a. increases and the equilibrium quantity increases.
 - b. decreases and the equilibrium quantity increases.
 - c. decreases and the equilibrium quantity decreases.
 - d. increases and the equilibrium quantity decreases.

3. A decrease in consumers' incomes has decreased the demand for tablets. At the same time, the tablet industry has enjoyed unprecedented increases in technology growth and decreases in costs of raw materials. What can we say about the equilibrium price and quantity in the tablet market as a result of these two changes?
 - a. price will rise and quantity will fall
 - b. price will fall, but the effect on equilibrium quantity is unknown
 - c. price will fall and quantity will fall
 - d. price will rise, but the effect on equilibrium quantity is unknown

4. You observe that the equilibrium price of good X has increased and the quantity has decreased. Ceteris paribus, this could result from
 - a. A decrease in the demand for good X.
 - b. An increase in the supply of good X.
 - c. A decrease in the supply of good X.
 - d. An increase in the demand for good X.

5. Suppose that when the price of salt increases, the demand for paprika increases. This indicates that these two goods are:
 - a. unrelated goods.
 - b. inferior goods.
 - c. substitute goods.
 - d. complement goods.

6. Ceteris paribus, if during an unusually cold winter the demand for hot chocolate increases, the price of a cup of hot chocolate

- a. decreases and the quantity supplied increases.
- b. increases and the supply of hot chocolate increases.
- c. increases and the quantity supplied increases.
- d. decreases and the supply of hot chocolate decreases.

7. “The quantity demanded of Sprite has increased,” Nicole correctly tells Kevin. The best explanation for this is

- a. the price of Sierra Mist has increased.
- b. Sprite’s costs have increased.
- c. the price of Sprite decreased.
- d. both a and b are possible.

8. The market for toothbrushes is unregulated and is presently characterized by excess demand. To return to equilibrium, you accurately predict that

- a. price will increase, the quantity demanded will fall and the quantity supplied will rise.
- b. price will increase, the quantity demanded will rise and the quantity supplied will fall.
- c. price will decrease, the quantity demanded will rise and the quantity supplied will fall.
- d. price will decrease, the quantity demanded will fall and the quantity supplied will rise.

9. Your friend Mark is going to a movie theatre this afternoon. He buys popcorn with “free refills” for \$6. Using your knowledge of Economics, how many buckets of popcorn should he consume?

- a. Eat until you have consumed \$6 worth of popcorn.
- b. Eat until you have consumed more than \$6 worth of popcorn.
- c. Eat as long as the marginal cost of the last popcorn exceeds the marginal benefit of that popcorn.
- d. Eat as long as the marginal benefit of the last popcorn exceeds the marginal cost of that popcorn.

10.

Country	Production per Year	
Belgium	10 Wine (gallons)	20 Waffles
France	2 Wine (gallons)	22 Waffles

The above table shows the production possibilities frontier for two countries, Belgium and France, which produce wine and waffles. If each country specializes according to its comparative advantage, _____ will export wine and _____ will export waffles?

- a. Belgium; France.
- b. France; Belgium.
- c. France; France.
- d. Neither will export, they are better off without trade.

11.

Country	To produce 1 Mercedes	To produce 1 Volkswagen
Germany	Labor of 10 workers	Labor of 9 workers
Spain	Labor of 12 workers	Labor of 8 workers

The above table shows how many workers it takes to produce one Mercedes and one Volkswagen in Germany and Spain, respectively. From this table, we can conclude that _____ has the comparative advantage in Mercedes production, and _____ has an absolute advantage in Volkswagen production.

- a. Germany; Spain.
- b. Spain; Germany.
- c. Germany; Germany.
- d. Spain; Spain.

12.

Maximum annual output options	Coconuts	Pineapples
A	50	0
B	40	20
C	30	40
D	20	50
E	10	55
F	0	57

The inhabitants of Fiji collect coconuts and pineapples according to the production possibilities frontier above. Using the above PPF, you can determine that the production pair of 25 coconuts and 55 pineapples is:

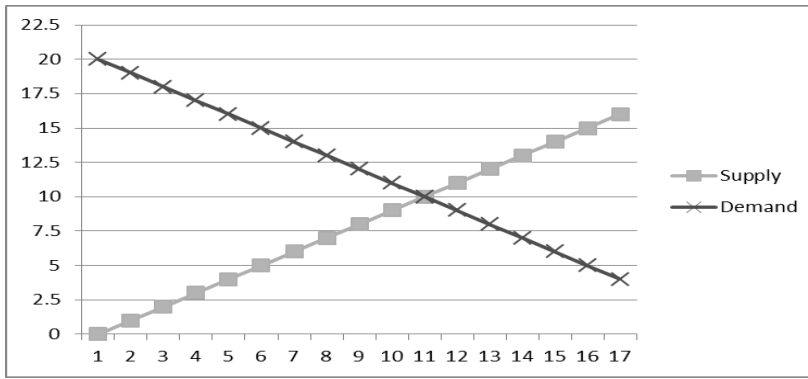
- a. Efficient and attainable.
- b. Inefficient and attainable.
- c. Unattainable.
- d. Maximizing the opportunity cost.

13. A representative of the International Cycling Union recently made the following statement:

“Approximately 10 professional cyclists were accused of doping during the 2012 season, leading up to the Tour de France. Even though the cases haven’t been proven, these 10 athletes should be permanently banned from the sport to fully showcase cycling’s anti-doping sentiments.”

Which of the following statements correctly points out the normative and positive statements in the quote?

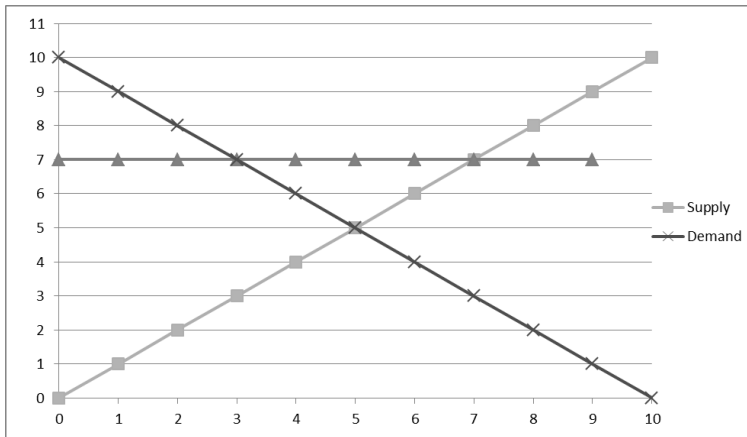
- a. Sentence 1 is normative. Sentence 2 is positive.
- b. Sentence 1 is positive. Sentence 2 is normative.
- c. Both sentences 1 and 2 are normative.
- d. Both sentences 1 and 2 are positive.



14.

The above diagram depicts the equilibrium in the market for textbooks. Assume there is a price **ceiling** set at \$12/shirt. Which of the following would result from the floor?

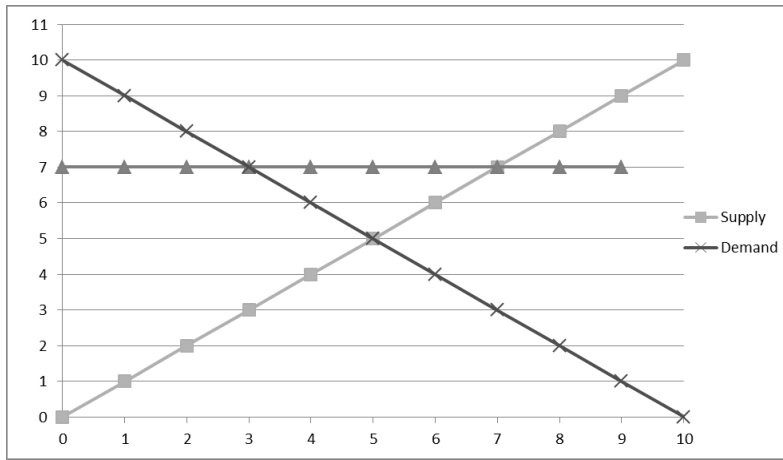
- a. There will be a shortage of textbooks.
- b. There will be a surplus of textbooks.
- c. Demand for t-shirts will shift inward.
- d. The price floor will not affect the equilibrium price and quantity of textbooks.



15.

The above diagram depicts equilibrium in the market for corn. Now, a price floor is set at \$7/lb. This will result in a

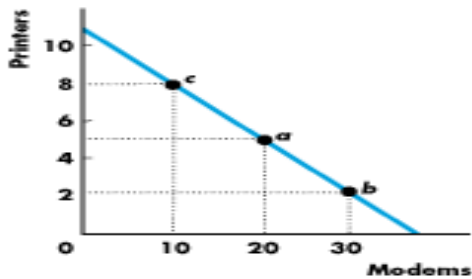
- a. Shortage of 4 ears of corn.
- b. Surplus of 4 ears of corn.
- c. No shortage or surplus.
- d. Surplus of 7 ears of corn.



16.

The above diagram depicts the equilibrium in the market for corn. What is the consumer surplus when a price floor is set at \$7/lb?

- a. $\frac{1}{2} * 4 * 2$
- b. $\frac{1}{2} * 3 * 3$
- c. $\frac{1}{2} * 5 * 5$
- d. $4 * 2$



17.

Above is a production possibilities frontier for Khutch Computer Store's production of Printers and Modems. If they move from point a to point c, the opportunity cost per printer:

- a. Increases
- b. Decreases
- c. Stays the same
- d. Is zero.

18.

Price	Quantity Demanded	Quantity Supplied
\$6	10,000	0
\$12	8,000	3,000
\$18	6,000	6,000
\$24	4,000	9,000
\$30	2,000	12,000
\$36	0	15,000

The table above shows information on demand and supply for boxes of 1 dozen silk napkins. The lobbyists for the silk napkin producers persuade the government to establish a price floor of \$24 per box. Before the price floor the equilibrium price was _____ per box and after the price floor, there is a _____ of 5,000 boxes.

- a. \$18; shortage.
- b. \$18; surplus.
- c. \$24; shortage.
- d. \$24; surplus.

19. Jimmy has a comparative advantage in mowing the lawn when compared to his siblings if he

- a. can mow the lawn faster than all of his siblings.
- b. has an absolute advantage in mowing the lawn.
- c. always keeps the lawn well-maintained.
- d. has a lower opportunity cost for mowing the lawn than his siblings.

20. Consumers' incomes have decreased due to a large increase in income taxes in Montana. How does this change the market for magazine subscriptions?

- a. If magazine subscriptions are a normal good, demand will increase.
- b. If magazine subscriptions are an inferior good, demand will increase.
- c. If magazine subscriptions are an inferior good, supply will increase.
- d. If magazine subscriptions are a normal good, supply will increase.

21.

Degree	Average Salary
Engineering	50,000
Economics	45,000
Biology	44,000
English	30,000
Architecture	40,000

Jen is deciding what to major in, and she is equally equipped in all fields, and has no personal preferences for any of them. She decides to be an Economics major. What is the opportunity cost?

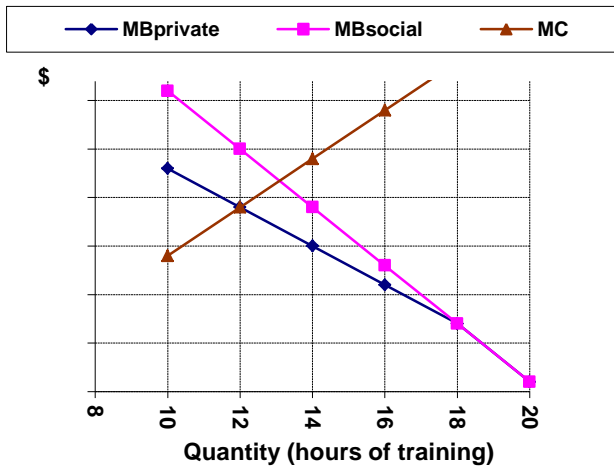
- a. \$50,000
- b. \$44,000
- c. \$45,000
- d. \$0

22. If I want to compare \$Z today to \$Y tomorrow, I could do which of the following?

- a. Calculate the present value of \$Y and compare it with \$Z.
- b. Calculate the future value of \$Z and compare it with the present value of \$Y.
- c. Calculate the future value of \$Y and compare it with \$Z.
- d. Calculate the present value of \$Z and compare it with the \$Y.

23. \$750 today is worth how much in 28 years? Assume the interest rate is 2%.

- a. $750(1.02)^{28}$
- b. $\frac{750}{(1.02)^{28}}$
- c. $750(3)^{28}$
- d. $\frac{750}{1.02}$



24.

The above graph displays the market for a job training program in the U.S., where clerical workers go to update their skills. MC represents the marginal cost of the training program. $MB_{private}$ is the private marginal benefits of the training program, and MB_{social} is the social demand curve and represents the social marginal benefits of the training program. Which of the following interventions could result in the socially optimal level of training?

- a tax on the program in the amount of the externality.
- a subsidy to the program in the amount of the externality.
- a law regulating 12 hrs of training for each clerical worker.
- Both b and c would work.

25. In order to produce the socially optimal level of a good when there is a negative externality (i.e. the marginal social cost exceeds the marginal private cost), the government should:

- subsidize the good.
- tax the good.
- export the good.
- put a price ceiling on the good.

26. Which of the following systems best fits with the meritocracy form of allocation?

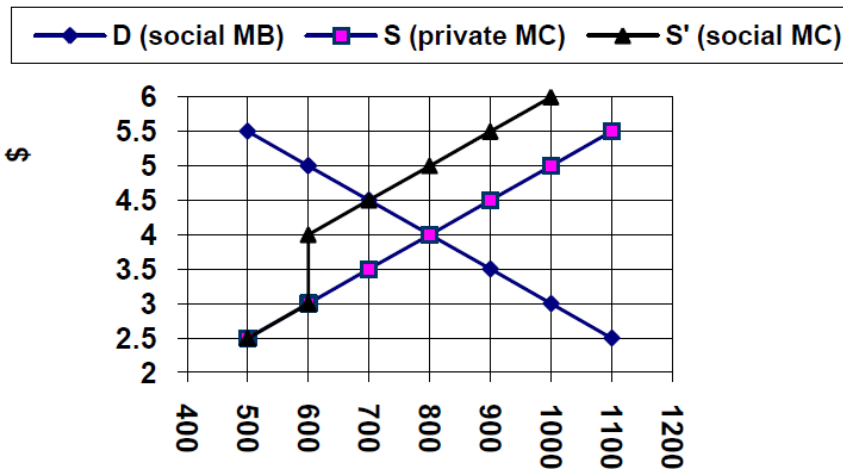
- Market Capitalist
- Market Socialist
- Command Capitalist
- Command Socialist

27.

	<i>SO₂ Emissions: Tons/Day</i>	<i>Marginal Cost of SO₂ Reduction (per ton)</i>
Smokestack 1	150	\$100
Smokestack 2	250	\$200
Smokestack 3	100	\$400

Suppose Leroy owns three smokestacks (shown in the table above), and the EPA imposes a regulation requiring him to cut his emissions in half. He comes to you for advice, and you tell him the most cost-effective way to cut down his emissions. How much will this cost him? (Hint: Assume that it is feasible to reduce emissions to 0 at any given smokestack.)

- a. \$115,000
- b. \$30,000
- c. \$35,000
- d. \$70,000



28.

The graph above shows the market for electricity in Bozeman, where dollars are in hundreds. The production process causes a great deal of pollution, and hence, the private and social marginal cost curves differ. The private optimum in this graph occurs at _____ and at a price of _____.

- a. 700; \$450
- b. 800; \$400
- c. 600; \$400
- d. 700; \$350

29.

Methamphetamine Use (per gram)	Private Marginal Costs (MC_{private})	Social Marginal Costs (MC_{social})	Marginal Benefits (MB)
0	1000	1500	5000
10	2000	2500	4000
20	3000	3500	3000
30	4000	4500	2000
40	5000	5500	1000
50	6000	6500	0

The above table depicts the market for methamphetamine (meth), an illegal substance. The second column shows the Private Marginal Costs, followed by the Social marginal Costs associated with the drug production and consumption. The final column depicts the Marginal Benefits, or the demand curve for meth. Given the information above, what is the per gram amount of the externality (the external costs to society from the drug production and consumption)?

- a. \$3,000
- b. \$50
- c. \$1,000
- d. \$500

30. Joey's acting classes maximizes its total revenue by selling lessons at \$50/hr. Ceteris paribus, at a price of \$40/hour, you predict that

- a. the demand for acting lessons is elastic.
- b. the demand for acting lessons is inelastic.
- c. the demand for acting lessons is unit elastic.
- d. there is excess demand for acting lessons.

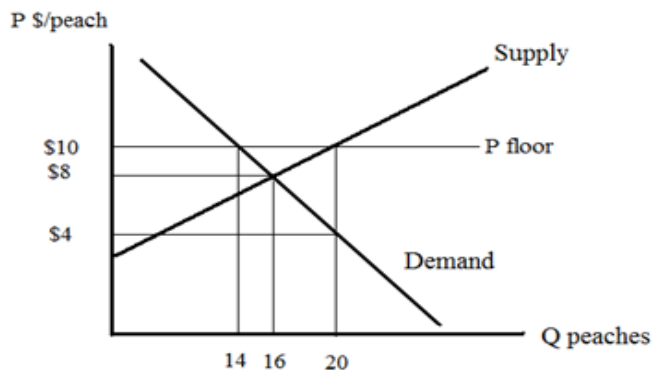
31. A researcher tells you that the elasticity of demand for Big Macs is -4. You notice that this month, the price of the Big Mac has decreased by 5%, you accurately predict that the quantity of Big Macs will:

- a. fall by 20%
- b. rise by 20 %
- c. fall by 5/4 %
- d. rise by 5/4 %

32. A perfectly inelastic demand curve:

- a. is a vertical line.
- b. is a horizontal line.
- c. is always equal to 0 regardless of price.
- d. has a slope of -1.

33. Which of the following is not a U.S. policy to aid farmers?
- price supports
 - price floors
 - demand manipulation
 - taxing production



34. In the market for peaches, the government sets a price floor of \$10/peach. Assuming that the government purchases the excess supply under the price floor, how much does it cost the government to impose the price support program? Assume there is no storage cost to this price floor program.
- \$60
 - \$600
 - \$140
 - \$10

35. The biggest difference between a price support and a price floor program is that
- a price support is not a government intervention and a price floor is.
 - a price support manipulates demand and a price floor does not.
 - in a price support, the government buys up excess supply and in a price floor it does not.
 - consumer surplus is higher with a price support than a price floor.

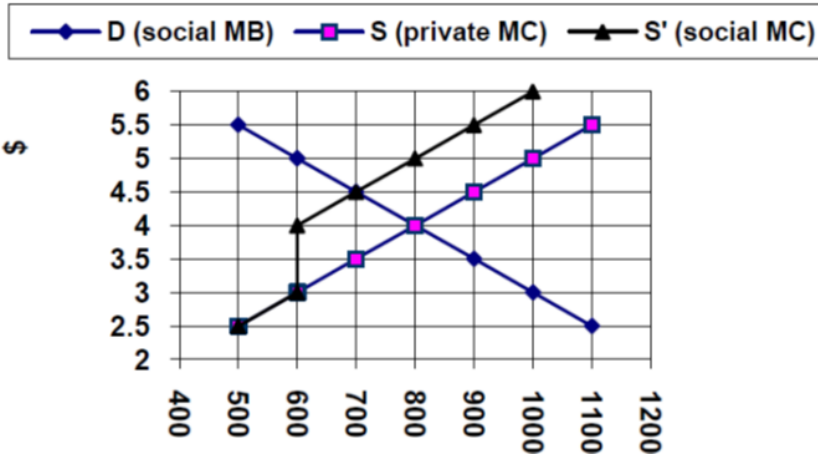
36. There are 6 consumers in a market. The following table shows each of their reservation prices (or their willingness to pay).

Andy	\$10
Bob	\$5
Carl	\$8
Denny	\$6
Edy	\$9
Frank	\$8

Suppose that this is a competitive market and the market price is \$7. What is the consumer surplus in equilibrium?

- a. \$6
 - b. \$4
 - c. \$7
 - d. \$28
37. Which of the following is a reason that employment in the agricultural industry has declined over time?
- a. there has been a substitution from labor to capital.
 - b. output/worker has increased over time.
 - c. increases in technology.
 - d. all of the above are explanations.
38. Which of the following is a rationale for intervention in the agricultural market?
- a. highly inelastic demand creates volatile prices.
 - b. farmers have low income.
 - c. demand for food has decreased over time.
 - d. none of the above.
39. Which of the following is most likely to describe the demand for crack cocaine for addicts?
- a. perfectly elastic
 - b. flat.
 - c. perfectly inelastic.
 - d. zero.

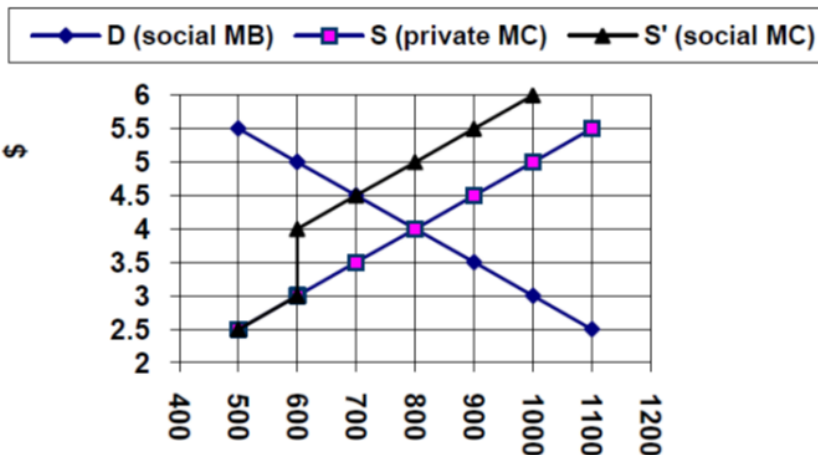
40. If the price of cocaine increases, which of the following could result? Use your knowledge of economics to answer this.
- a. the demand for methamphetamines will increase if the two are complements.
 - b. the quantity demanded of cocaine will increase.
 - c. the quantity supplied of cocaine will decrease.
 - d. the demand for marijuana will increase if the two are substitutes.
41. The demand for heroin has decreased over time in the U.S. Which of the following best explains why this has happened?
- a. incomes have increased over time and heroin is a normal good.
 - b. the availability of cheaper substitutes has increased over time.
 - c. the risks involved in using heroin have decreased over time
 - d. both b and c are correct.
42. If marijuana were to become legalized in all 50 states tomorrow, this would:
- a. increase demand and increase supply.
 - b. increase demand and decrease supply.
 - c. decrease demand and decrease supply.
 - d. decrease demand and increase supply.
43. What market failures cause legislatures to label a good illegal?
- a. Imperfect information
 - b. Negative externalities
 - c. Monopoly Power
 - d. a and b are correct.



44.

The above graph shows the market for methamphetamines (meth) in Harrah, Oklahoma. The production process is extremely dangerous and results in many household fires and explosions. Therefore, the perfectly competitive market's Marginal Costs (S or private MC) does not internalize the entire costs of producing meth. Instead, S' shows the additional social costs associated with this production. Based on the graph, the private equilibrium consumption of meth is _____, whereas the socially efficient level of meth consumption in Harrah, OK is _____.

- a. 700; 800.
- b. 800; 700.
- c. 700; 700.
- d. 800; 800.



45.

The above graph shows the market for methamphetamines (meth) in Harrah, Oklahoma. The production process is extremely dangerous and results in many household fires and explosions. Therefore, the perfectly competitive market's Marginal Costs (S, private MC) does not internalize the entire costs of producing meth. Instead, S' shows the additional social costs associated with this production. Now the government decides to legalize meth in Harrah, OK. If neither supply nor demand shift in the short run, how much would the government have to tax meth in order to reach the socially optimal level?

- a. \$1/unit
- b. \$0.50/unit
- c. \$2/unit
- d. \$700/unit

46.

Quantity of Labor (scouts per hour)	Quantity of Output (Total Seashells/hour)
1	9
2	19
3	28
4	36
5	43
6	49
7	54
8	58
9	61
10	63

Sandy has a seashell store, and hires scouts to collect seashells on her private beach according to the production function above. The market price for seashells is \$2 each. Based on this information, what is the marginal product of labor of the 7th scout per hour?

- a. 54 shells per hour
- b. \$108 per hour
- c. 5 shells per hour
- d. \$10 per hour

47.

Quantity of Labor (scouts per hour)	Quantity of Output (Total Seashells/hour)
1	9
2	19
3	28
4	36
5	43
6	49
7	54
8	58
9	61
10	63

Sandy has a seashell store, and hires scouts to collect seashells on her private beach according to the production function above. The market price for seashells is \$2 each. Based on this information, what is the maximum wage Sandy is willing to pay the 7th scout per hour?

- a. \$108 per hour
- b. \$10 per hour
- c. \$54 per hour
- d. \$5 per hour

48.

Quantity of Labor (scouts per hour)	Quantity of Output (Total Seashells/hour)
1	9
2	19
3	28
4	36
5	43
6	49
7	54
8	58
9	61
10	63

Sandy has a seashell store, and hires scouts to collect seashells on her private beach according to the production function above. The market price for seashells is \$2 each. Based on this information, what is the total revenue Sandy will generate if she hires 4 works?

- a. \$72 per hour
- b. \$36 per hour
- c. \$9 per hour
- d. Cannot answer this with the given information.

49. The income distribution shows:

- a. the percent of individuals in the U.S. below the federal poverty line.
- b. the total GDP in the U.S.
- c. the levels of income in an economy, as well as the percentage of households earning those income levels.
- d. the number of people in the U.S. receiving welfare assistance.

50. The poverty threshold:

- a. varies by family size.
- b. varies by household.
- c. varies by race.
- d. all of the above.

1	a	26	a
2	c	27	c
3	b	28	b
4	c	29	d
5	c	30	b
6	c	31	b
7	c	32	a
8	a	33	d
9	d	34	a
10	a	35	c
11	a	36	c
12	c	37	d
13	b	38	a
14	d	39	c
15	b	40	d
16	b	41	b
17	c	42	a
18	b	43	d
19	d	44	b
20	b	45	a
21	a	46	c
22	a	47	b
23	a	48	a
24	b	49	c
25	b	50	a