

Final Exam

Exam Guidelines:

The exam consists of 45 multiple choice questions.

The exam is closed book and closed notes. You may use a calculator for basic math functions. No cell phones are allowed. No talking is allowed during the exam. I reserve the right to ask you to switch seats to protect the integrity of the exam.

You have 1 hour and 45 minutes to complete the exam.

Do NOT begin until I tell you to and stop when you are told time is up

Good Luck!

1. If a price ceiling is not binding, then
 - a. the equilibrium price is above the price ceiling.
 - b. the equilibrium price is below the price ceiling.
 - c. it has no legal enforcement mechanism.
 - d. None of the above is correct because all price ceilings must be binding.

2. Which of the following is *not* correct?
 - a. Markets allocate scarce resources with the forces of supply and demand.
 - b. The equilibrium of supply and demand is typically an efficient allocation of resources.
 - c. Governments can sometimes improve market outcomes.
 - d. Externalities cannot be positive.

3. A downward-sloping demand curve
 - a. is a feature of all monopolistically competitive firms.
 - b. means that the firm in question will never experience a zero profit.
 - c. causes marginal revenue to exceed price.
 - d. prohibits firms from earning positive economic profits in the long run.

Table 17-14

This table shows a game played between two players, A and B. The payoffs in the table are shown as (Payoff to A, Payoff to B).

		B	
		<i>Right</i>	<i>Left</i>
A	<i>Up</i>	(2, 2)	(3, 1)
	<i>Down</i>	(1, 3)	(0, 0)

4. **Refer to Table 17-14.** Which outcome is the Nash equilibrium in this game?
 - a. Up-Right
 - b. Up-Left
 - c. Down-Right
 - d. Down-Left

5. Diminishing marginal product occurs when
 - a. the increases to total output are declining.
 - b. marginal product is negative.
 - c. total output is decreasing.
 - d. All of the above are correct.

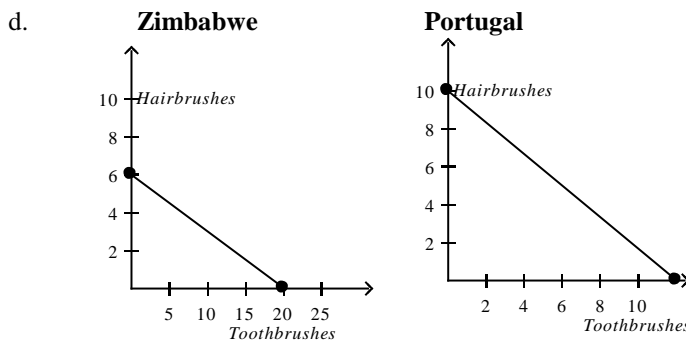
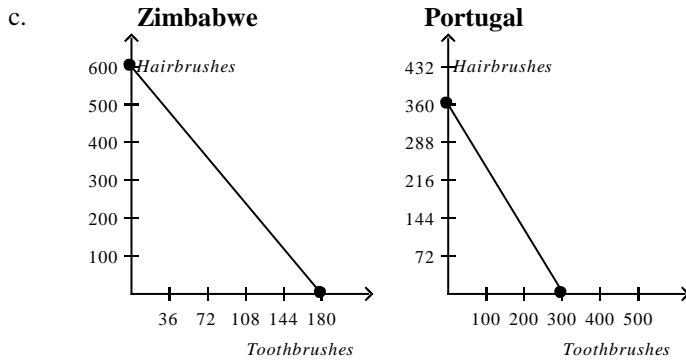
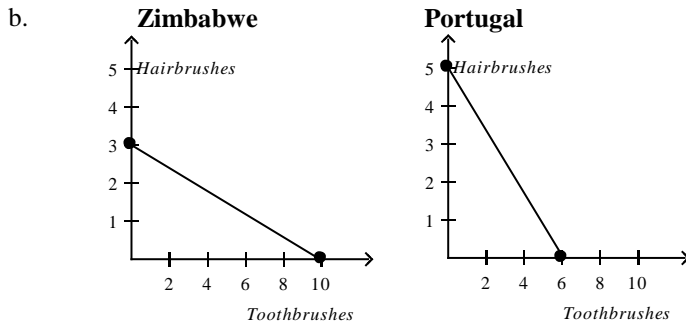
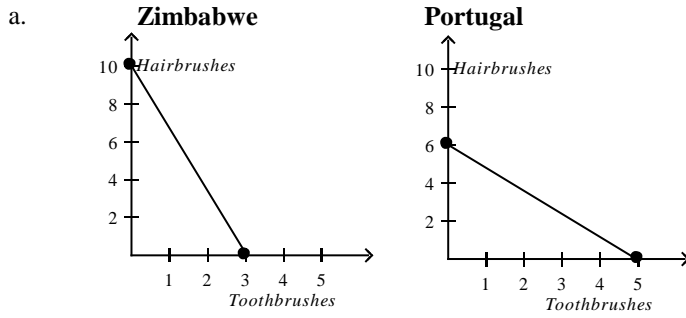
6. A transfer payment is a government payment
 - a. to companies that provide goods or services to government agencies.
 - b. designed to transfer funds from one government agency to another.
 - c. which transfers revenue from the federal government to state government.
 - d. not made in exchange for a good or service.

Table 3-3

Assume that Zimbabwe and Portugal can switch between producing toothbrushes and producing hairbrushes at a constant rate.

	Machine Minutes Needed to Make 1	
	Toothbrush	Hairbrush
Zimbabwe	3	10
Portugal	5	6

7. Refer to Table 3-3. Which of the following represents Zimbabwe's and Portugal's production possibilities frontiers when each country has 60 minutes of machine time available?



8. Refer to Table 3-3. Which of the following combinations of toothbrushes and hairbrushes could Zimbabwe *not* produce in 120 minutes?

- a. 5 toothbrushes and 11 hairbrushes
- b. 10 toothbrushes and 9 hairbrushes
- c. 20 toothbrushes and 6 hairbrushes
- d. 30 toothbrushes and 3 hairbrushes

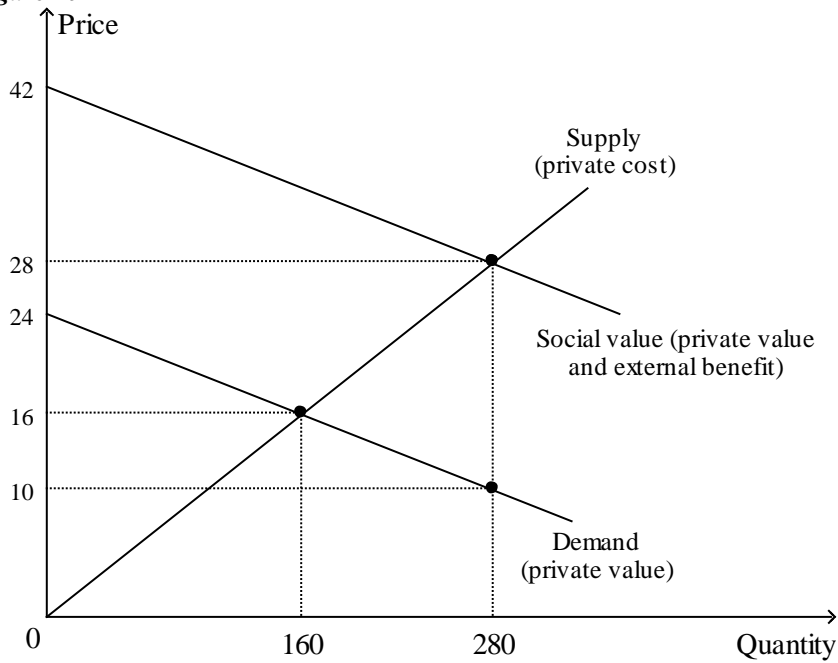
9. The maximum price that a buyer will pay for a good is called the
- cost.
 - willingness to pay.
 - equity.
 - efficiency.

Table 7-1

Buyer	Willingness To Pay
Lori	\$50.00
Audrey	\$30.00
Zach	\$20.00
Calvin	\$10.00

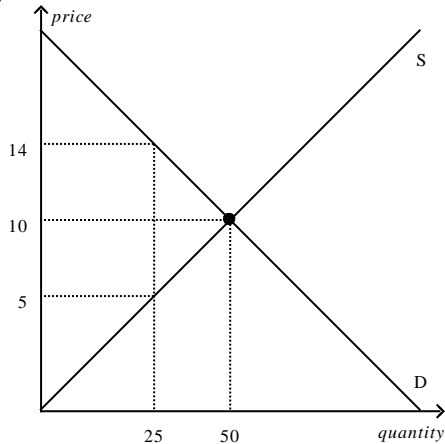
10. Refer to Table 7-1. If the price of the product is \$15, then who would be willing to purchase the product?
- Lori
 - Lori and Audrey
 - Lori, Audrey, and Zach
 - Lori, Audrey, Zach, and Calvin

Figure 10-11



11. **Refer to Figure 10-11.** The graph represents a market in which
- there is no externality.
 - there is a positive externality.
 - there is a negative externality.
 - The answer cannot be determined from inspection of the graph.
12. **Refer to Figure 10-11.** The socially optimal quantity of output is
- 160 units, since the value to the buyer of the 160th unit is equal to the cost incurred by the seller of the 160th unit.
 - 160 units, since the value to society of the 160th unit is equal to the cost incurred by the seller of the 160th unit.
 - 280 units, since the value to the buyer of the 280th unit is equal to the cost incurred by the seller of the 280th unit.
 - 280 units, since the value to society of the 280th unit is equal to the cost incurred by the seller of the 280th unit.
13. The poverty rate is
- a measure of income inequality across families.
 - the percentage of the population whose family income falls below a specified level.
 - an absolute level of income set by the federal government for each family size.
 - measured by the number of in-kind transfers that a family receives.
14. The typical economic life cycle illustrates how people tend to
- borrow more when they are younger and save more when they are middle-aged.
 - earn their peak incomes immediately prior to the typical retirement age of 65.
 - adjust their consumption based on changes in their transitory income.
 - All of the above are correct.
15. Bill and Phil are identical twins who attended grammar school through college together. Bill took a job as an engineer who does not have to travel out of the state. Phil took a job as an engineer who must travel out of state once a week. Bill earns \$105,000 a year, and Phil earns \$185,000 a year. Select the best explanation for this wage difference.
- Phil has more human capital relative to Bill.
 - Phil has less human capital relative to Bill.
 - Phil receives a higher wage to compensate for the disagreeable nature of business travel.
 - Bill's lower salary supports the signaling theory of education.
16. Other things equal, a particular job will likely pay a higher wage if it involves
- danger to the worker.
 - personal enjoyment for the worker.
 - intellectual stimulation for the worker.
 - All of the above are correct.
17. If, at the current price, there is a surplus of a good, then
- sellers are producing more than buyers wish to buy.
 - the market must be in equilibrium.
 - the price is below the equilibrium price.
 - quantity demanded equals quantity supplied.
18. When demand is perfectly inelastic, the price elasticity of demand
- is zero, and the demand curve is vertical.
 - is zero, and the demand curve is horizontal.
 - approaches infinity, and the demand curve is vertical.
 - approaches infinity, and the demand curve is horizontal.

Figure 6-16



19. **Refer to Figure 6-16.** Suppose a tax of \$5 per unit is imposed on this market. How much will sellers receive per unit after the tax is imposed?
- \$5
 - between \$5 and \$10
 - between \$10 and \$14
 - \$14

Table 11-2

Consider a small town with only three families, the Johnson family, the Marshall family, and the Walker family. The town does not currently have any streetlights so it is very dark at night. The three families are considering putting in streetlights on Main Street and are trying to determine how many lights to install. The table below shows each family's willingness to pay for each streetlight.

Number of Streetlights	The Johnson Family	The Marshall Family	The Walker Family
1	\$170	\$240	\$210
2	130	190	200
3	80	130	170
4	20	65	120
5	0	25	50
6	0	0	10

20. **Refer to Table 11-2.** Suppose the cost to install each streetlight is \$450. How many streetlights should the town install to maximize total surplus from the streetlights?
- 1 streetlight
 - 2 streetlights
 - 3 streetlights
 - 4 streetlights
21. **Refer to Table 11-2.** Suppose the cost to install each streetlight is \$180 and the families have agreed to split the cost of installing the streetlights equally. To maximize their own surplus, how many streetlights would the Johnson's like the town to install?
- 0 streetlights
 - 1 streetlight
 - 2 streetlights
 - 3 streetlights

22. Which of the following is *not* a characteristic of a monopoly?
- barriers to entry
 - one seller
 - one buyer
 - a product without close substitutes

Table 17-5. Imagine a small town in which only two residents, Kunal and Naj, own wells that produce safe drinking water. Each week Kunal and Naj work together to decide how many gallons of water to pump, to bring the water to town, and to sell it at whatever price the market will bear. Assume Kunal and Naj can pump as much water as they want without cost so that the marginal cost of water equals zero.

The weekly town demand schedule and total revenue schedule for water are shown in the table below.

Weekly Quantity (in gallons)	Price	Weekly Total Revenue (and Total Profit)
0	\$12	\$ 0
25	11	275
50	10	500
75	9	675
100	8	800
125	7	875
150	6	900
175	5	875
200	4	800
225	3	675
250	2	500
275	1	275
300	0	0

23. **Refer to Table 17-5.** Since Kunal and Naj operate as a profit-maximizing monopoly in the market for water, what price will they charge for water?
- \$2
 - \$4
 - \$6
 - \$7
24. **Refer to Table 17-5.** If the market for water were perfectly competitive instead of monopolistic, how many gallons of water would be produced and sold?
- 25
 - 100
 - 200
 - 300

Table 12-2

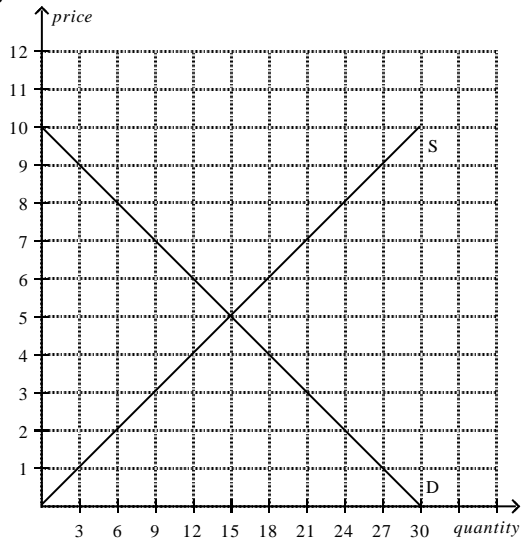
Consider the tax rates shown in the table below.

Tax Rate	Income Range
8%	0 - 15,000
16%	15,000 - 35,000
24%	35,000 - 75,000
34%	75,000 - 145,000
36%	145,000 - 330,000
38%	over 330,000

25. **Refer to Table 12-2.** If Mateo has taxable income of \$165,000, his tax liability is
- \$23,800.
 - \$36,000.
 - \$45,000.
 - \$47,698.
26. **Refer to Table 12-2.** If Mateo has taxable income of \$165,000, his marginal tax rate is
- 16%.
 - 24%.
 - 34%.
 - 36%.
27. The labor supply curve shifts when
- employers need to hire more people.
 - employers develop new technology.
 - workers change the number of hours that they want to work at any given wage.
 - workers become more productive.
28. Jake and Harry each have 130 hours of college credit from Impressive University. Each has 30 hours of economics. Jake has a bachelor's degree, while Harry is 3 credits short of required physical education classes and therefore does not have a degree. Each of them has one year of experience as a market analyst for ABC Company. Assuming that the physical education class would not enhance Harry's job performance, if Jake earns a higher salary than Harry, the ABC Company may subscribe to the
- human capital theory.
 - discrimination theory.
 - compensating differential theory.
 - signaling theory.
29. Which of the following events must cause equilibrium price to rise?
- demand increases and supply decreases
 - demand and supply both decrease
 - demand decreases and supply increases
 - demand and supply both increase
30. The price elasticity of demand measures how much
- quantity demanded responds to a change in price.
 - quantity demanded responds to a change in income.
 - price responds to a change in demand.
 - demand responds to a change in supply.

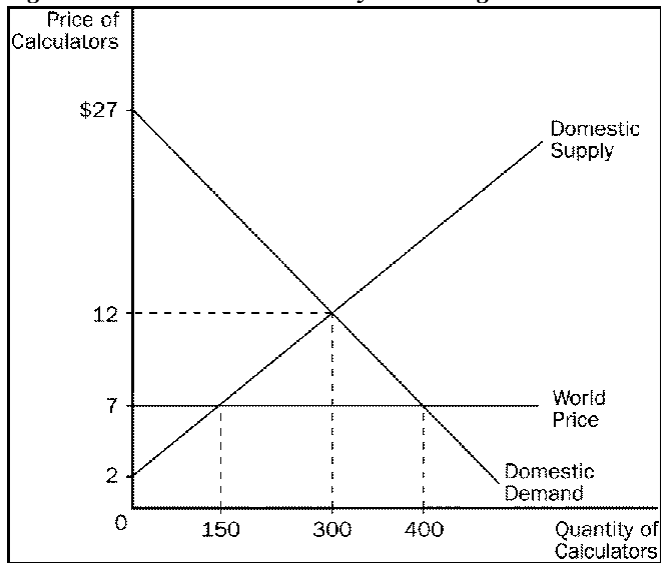
31. When the price of bubble gum is \$0.50, the quantity demanded is 400 packs per day. When the price falls to \$0.40, the quantity demanded increases to 600. Given this information and using the midpoint method, we know that the demand for bubble gum is
- inelastic.
 - elastic.
 - unit elastic.
 - perfectly inelastic.

Figure 6-9



32. **Refer to Figure 6-9.** A price ceiling set at
- \$4 will be binding and will result in a shortage of 3 units.
 - \$4 will be binding and will result in a shortage of 6 units.
 - \$7 will be binding and will result in a surplus of 6 units.
 - \$7 will be binding and will result in a surplus of 12 units.
33. A tax levied on the buyers of a good shifts the
- supply curve upward (or to the left).
 - supply curve downward (or to the right).
 - demand curve downward (or to the left).
 - demand curve upward (or to the right).
34. When a country allows trade and becomes an importer of a good,
- everyone in the country benefits.
 - the gains of the winners exceed the losses of the losers.
 - the losses of the losers exceed the gains of the winners.
 - everyone in the country loses.

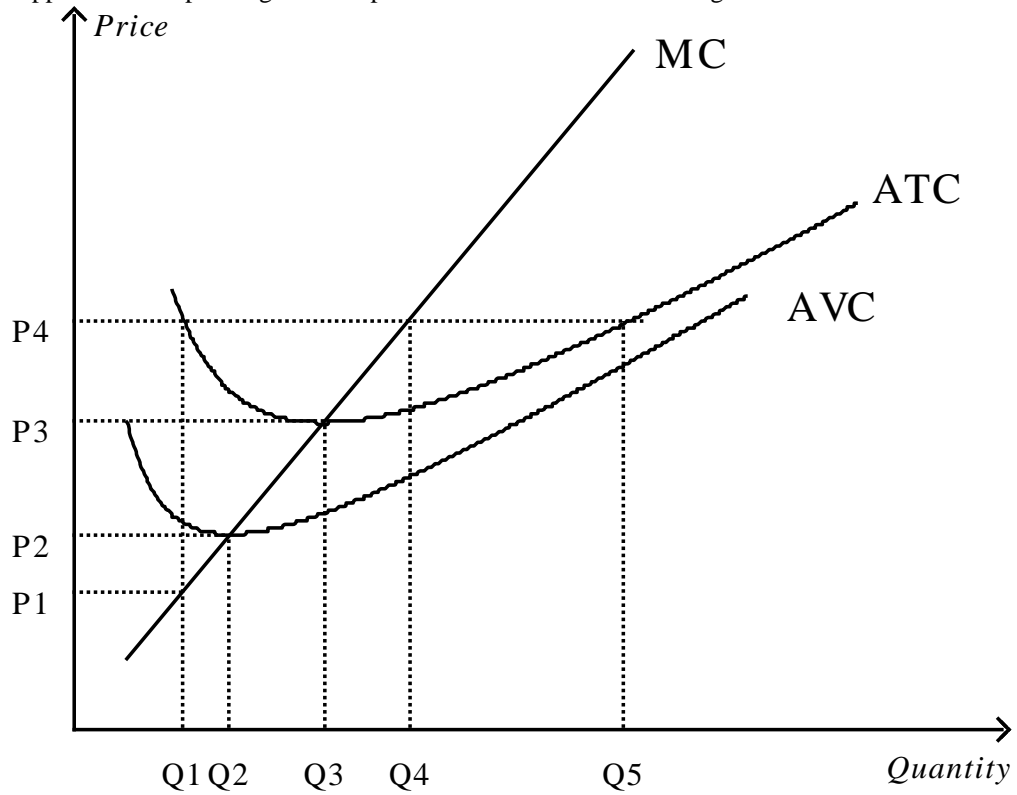
Figure 9-4. The domestic country is Nicaragua.



35. **Refer to Figure 9-4.** With trade, Nicaragua
- imports 150 calculators.
 - imports 250 calculators.
 - exports 100 calculators.
 - exports 250 calculators.
36. Katherine gives piano lessons for \$15 per hour. She also grows flowers, which she arranges and sells at the local farmer's market. One day she spends 5 hours planting \$50 worth of seeds in her garden. Once the seeds have grown into flowers, she can sell them for \$150 at the farmer's market. Katherine's accounting profits are
- \$100, and her economic profits are \$25.
 - \$100, and her economic profits are \$75.
 - \$25, and her economic profits are \$100.
 - \$75, and her economic profits are \$125.
37. A firm has a fixed cost of \$500 in its first year of operation. When the firm produces 100 units of output, its total costs are \$3,500. When it produces 101 units of output, its total costs are \$3,750. What is the marginal cost of producing the 101st unit of output?
- \$250
 - \$275
 - \$340.91
 - \$350

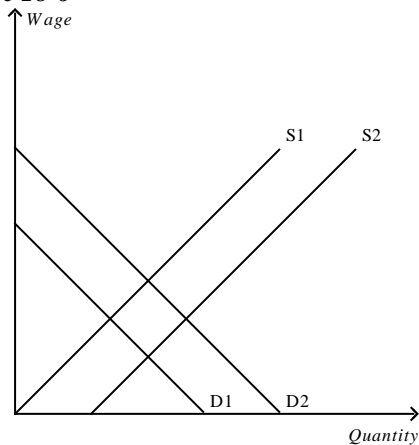
Figure 14-4

Suppose a firm operating in a competitive market has the following cost curves:



38. **Refer to Figure 14-4.** When price rises from P_2 to P_3 , the firm finds that
- marginal cost exceeds marginal revenue at a production level of Q_2 .
 - if it produces at output level Q_3 it will earn a positive profit.
 - expanding output to Q_4 would leave the firm with losses.
 - it could increase profits by lowering output from Q_3 to Q_2 .
39. Which of the following is *not* an explanation for why better educated workers earn more, on average, than less educated workers?
- The higher wages may be a compensating differential for the cost of acquiring the education.
 - Workers with a college degree signal their higher abilities to potential employers.
 - Skilled labor is increasingly becoming a substitute for unskilled labor, which raises the earnings of workers with more education.
 - Better educated workers are more productive, on average.
40. The United States has more income inequality than
- Brazil.
 - Mexico.
 - Canada.
 - South Africa.

Figure 18-6



41. **Refer to Figure 18-6.** The graph above illustrates the market for bakers who make homemade breads and breakfast pastries. If the bakery profession becomes more attractive to young women and men because of a new reality television show, what happens in the market for bakers?
- Demand increases from D_1 to D_2 .
 - Demand decreases from D_2 to D_1 .
 - Supply increases from S_1 to S_2 .
 - Supply decreases from S_2 to S_1 .

42. For a monopoly firm, the shape and position of the demand curve play a role in determining the
- (i) profit-maximizing price.
 - (ii) shape and position of the marginal-cost curve.
 - (iii) shape and position of the marginal-revenue curve.
- a. (i) and (ii) only
 - b. (ii) and (iii) only
 - c. (i) and (iii) only
 - d. (i), (ii), and (iii)
43. Suppose a firm operates in the short run at a price above its average total cost of production. In the long run the firm should expect
- a. new firms to enter the market.
 - b. the market price to fall.
 - c. its profits to fall.
 - d. All of the above are correct.
44. Economists refer to the inputs that firms use to produce goods and services as
- a. derived factors.
 - b. derived resources.
 - c. factors of production.
 - d. instruments of revenue.
45. Which of the following is *not* correct?
- a. Many measures of inequality are based on income, which may not reflect a person's standard of living.
 - b. Because many of the poorest families receive in-kind transfers, more families have lower standards of living when compared to poverty rates based on income.
 - c. Because people can borrow and save to smooth out life cycle changes in income, equality measures based only on income may not reflect a person's standard of living.
 - d. A person's standard of living depends more on her permanent income than her transitory income, so inequality measures based on current income may be misleading.