

CHAPTER 2— Resource Utilization Solutions Manual

Answers to Multiple-Choice Questions

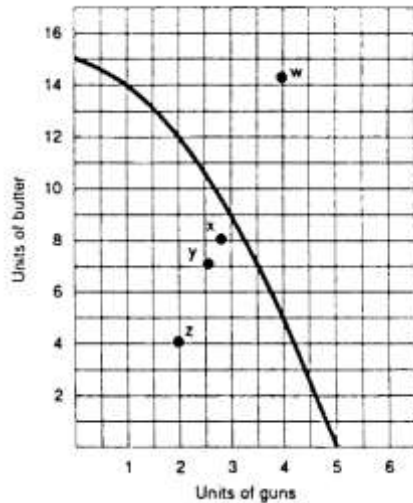
- | | | | |
|-----|---|-----|---|
| 1. | c | 19. | b |
| 2. | b | 20. | d |
| 3. | b | 21. | b |
| 4. | c | 22. | c |
| 5. | a | 23. | c |
| 6. | b | 24. | b |
| 7. | c | 25. | d |
| 8. | a | 26. | a |
| 9. | b | 27. | b |
| 10. | c | 28. | d |
| 11. | c | 29. | b |
| 12. | a | 30. | d |
| 13. | b | 31. | a |
| 14. | a | 32. | b |
| 15. | c | 33. | d |
| 16. | b | 34. | c |
| 17. | a | 35. | d |
| 18. | d | | |

Answers to Fill-In Questions

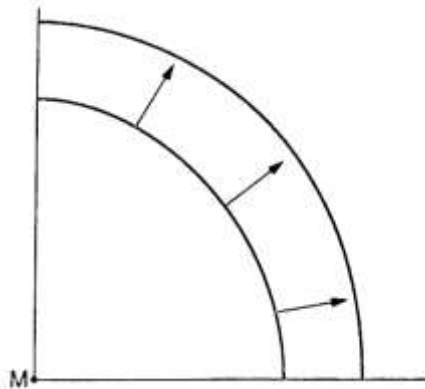
1. underemployed
2. scarcity
3. unlimited; limited
4. the opportunity cost of producing additional units of this good increases
5. increasing costs
6. The sacrifice of not buying the jacket.
7. five percent
8. (1) blue laws; (2) child labor laws; and (3) Americans' preference for daylight weekday work hours.
9. underemployment; less than full production; inefficient allocation of resources.
10. production possibilities frontier or curve
11. within (or inside)
12. (1) improving the level of technology and (2) increasing the amount of resources.

Answers to Problems

1. No—Point C is on the production possibilities frontier which indicates that the economy is currently operating at full capacity, which precludes producing more of both goods in the near term.
2. Yes—Point M is below the production possibilities frontier which indicates that the economy is currently below capacity, meaning producing more of both goods in the near term should be feasible.
3. No—Point J is above the production possibilities frontier which indicates that it is currently above the economy's capacity to produce. Economic growth may make it feasible to achieve at some point in the future, but it would most likely take years rather than months.
4. A sample graph would look like the following:

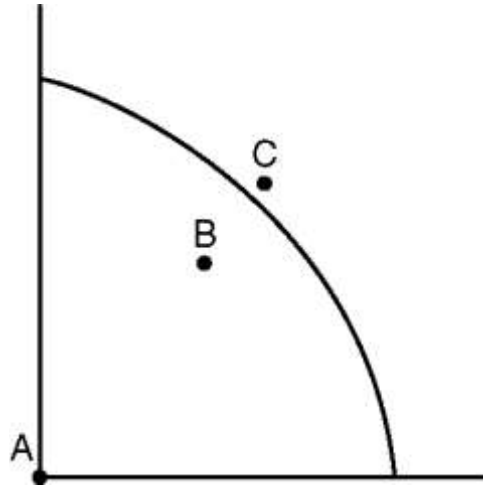


5. Substantial economic growth is exhibited by a sizable rightward shift of the production possibilities frontier.



6. 100% employment is shown at point M in the graph above. It is assumed that any level of production requires the use of some resources. In order for all resources to be unemployed, there can be no production of any good.

7.



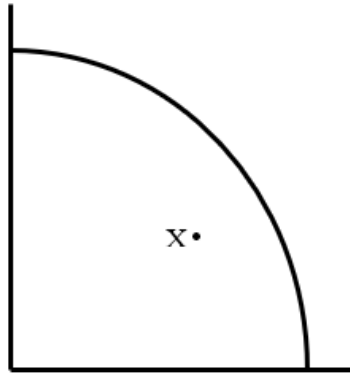
8. 2 units of butter, 1 unit of guns: The opportunity cost of more of any item is the required sacrifice of other items that must be incurred. Since there are only two goods here, the cost of more of one is the associated loss in the other. Movement from B to C adds a gun but requires a reduction of $(14 - 12) = 2$ units of butter.

9. Finding opportunity cost from a production possibilities frontier is simply a matter of comparing the coordinates of the designated points.

- a) Movement from point B (170 DVDs, 50 Cameras) to point C (160 DVDs, 80 Cameras) leads to 30 more cameras at a loss/sacrifice of 10 DVDs.
- b) Movement from point D (150 DVDs, 100 cameras) to point C (160 DVDs, 80 cameras) leads to 10 more DVDs at loss/sacrifice of 20 cameras.
- c) Movement from point B (170 DVDs, 50 cameras) to point A (180 DVDs, 0 cameras) leads to 10 more DVDs at loss/sacrifice of 50 cameras.
- d) Movement from point C (160 DVDs, 80 cameras) to point D (150 DVDs, 100 cameras) leads to 20 more cameras at loss/sacrifice of 10 DVDs.

10. Moving from point E toward point A, we give up increasing amounts of digital cameras for each gain of 10 DVD players. The opportunity cost of moving from E to D is 10 digital cameras; from D to C, 20 digital cameras; from C to B, 30 digital cameras and from B to A, 50 digital cameras.

11.



Answers to Questions for Further Thought and Discussion

1. *If you were in a position to run our economy, what steps would you take to raise our rate of economic growth?*

Increase our savings rate, build more and better capital, have a larger and more skilled labor force, and improve the technology. The federal government could sponsor more basic research, which would boost our technology. Much of our technological advance over the last six decades has come from research funded by the military. A recent application is the Internet. Our labor force could be increased in size and quality by increased immigration. Employers have been clamoring to raise immigration quotas for skilled workers. We could also try to improve our educational system.

2. *Under what circumstances can we operate outside our production possibilities curve?*

The most common circumstance has been during wartime when workers are more willing to work overtime, work at night and on weekends, and everyone is more willing to put forth that extra effort to help win the war. During times of great prosperity, such as in the last four or five years, we have reduced our unemployment rate well below the full employment rate of 5 percent.

3. *Give an example of an opportunity cost for an individual and for a nation.*

Individual opportunity cost: If you spend the evening before an exam at a concert, you are giving up 15 points on your exam grade. If you buy a pair of jeans, you would not be able to buy 2 CDs.

National opportunity cost: By building a highway, the nation gave up a new aircraft carrier. By providing \$10 billion to hire new teachers, there was \$10 billion less available for a tax cut.

4. *Would it be harder for a nation to attain full employment or full production? Explain.*

Full employment is one of several conditions needed to attain full production. The other involves an efficient allocation of our resources. There would be no underemployment of resources, no employment discrimination, no misallocation of resources, and we would use the best available technology.

5. *Could a nation's production possibilities frontier ever shift inward? Discuss whatever might cause such a shift to occur.*

A nation's production possibilities frontier could shift inward if its productive capacity declined—if the quantity or quality of its labor force declined, if the quantity or quality of its capital declined, or if it used a lower level of technology. The populations of several Western European countries have been declining for years, and in the United States, our birth rate has fallen so low that our population would have been falling if several million immigrants had not been moving here each year. During a war or a depression, the stock of capital usually falls. And if an economy could not afford much new investment, it is possible that older, less productive technology might be used. For example, if we could not afford the investment, we would continue to use our older computers, and perhaps even buy older computers from other countries because we could not afford the newer ones. Indeed, we do export some of our older, obsolete capital to less developed countries.

6. *What is the opportunity cost you incurred by going to college?*

This is one you can answer a lot better than me, but I'll try. It might be not holding a full-time job, not spending several hours a day watching Netflix, or it might be not lying on the beach, surfing, partying, or just hanging out. Maybe you're giving up a career playing major league baseball or being a rock star.

7. *Although the United States is one of the world's wealthiest nations, some of the federal government's budget decisions are severely constrained by scarcity. Can you think of one such decision that was in the recent economic news?*

I'm at too much of a disadvantage to do more than guess at what would be in the recent economic news—possibly giving up a big tax cut to pay down the national debt, or maybe giving up a national health insurance plan to shore up Social Security.

8. *Why is scarcity central to economics?*

If there were no scarcity of economic resources, we could produce as much as we needed or wanted, and there would be no need to economize.

9. *Can you think of any decision you have recently made that incurred opportunity costs?*

Anything that involves giving up the next best alternative. For me it was revising this book instead of writing another book.

10. *Do you know any entrepreneurs? What do they do?*

You would choose business owners and describe how they run their businesses.

11. *Why is entrepreneurship central to every business firm?*

A firm cannot run by itself. Someone is needed to hire the land and labor, supply or raise the capital, and to make the major decisions. Business firms do not just spring up by themselves. Entrepreneurs recognize business opportunities and are able to take advantage of them by starting companies, running them, and building them into profitable enterprises.

12. *Explain the law of increasing costs, using a numerical example.*

The law of increasing costs: As the output of one good expands, the opportunity cost of producing additional units of this good will entail larger and larger opportunity costs. If we were producing bushels of wheat and neckties and we were to keep expanding wheat production, we would need to give up increasing numbers of neckties. For example, if we were to increase wheat production by

one bushel increments from 1 bushel to 5 bushels, we would have to give up producing 2, 5, 9, 17, and 30 neckties, respectively.

13. *Discuss the three concepts upon which the law of increasing cost is based.*

- (1) The law of diminishing returns: if units of a resource are added to a fixed proportion of other resources, eventually marginal output will decline.
- (2) Diseconomies of scale: inefficiencies that crop up as a firm continues to expand
- (3) Factor suitability: As output expands, we hire land, labor, and capital that is less and less suitable (because we hire the most suitable factors first).

14. *Practical Application: Underemployment of college graduates is a growing problem. If you were appointed to the board of trustees of your college, what measure would you suggest to alleviate this problem for the graduates of your school?*

A substantial number of alumni own businesses or work for sizeable companies and should be invited to recruit graduating seniors. Also, intern programs could be set up with these companies.

Recent graduates should be contacted about any available positions in their companies. And then, too, the names of the school's most prominent graduates could be used in ads placed in trade journals such as *The American Banker* and *Computer World*.