Chapter 9

Answers to Section 1 Review

1. In the past 200 years, the population has increased from about 1 billion to over 6 billion and the growth rate has increased. This change was made possible by improvements in healthcare, nutrition, and sanitation.
2. age structure, survivorship, fertility rates, and migration
3. If a population has more young people than older people, the population size will probably increase as the young people grow up and have children.
4. In stage 1 the birth and death rates are high so the population grows slowly or not at all. In stage 2 birth rates remain high but death rates decline so the population increases. In stage 3 the birth rate and death rate are about equal, so the population stabilizes. In stage 4 the birth rate declines while the death rate stays low, so the population decreases.
5. Life expectancy is affected by infant mortality. If infant mortality is high, it brings down life expectancy. Many people live past life expectancy because the number is an average of all life spans.
6. Answers may vary. Some countries do not have the resources to lower death rates and keep birth rates high.

Answers to Section 2 Review

1. Sample answer: the shortage of fuelwood, poor water quality, and impacts on land
2. Sample answer: Less-developed countries typically
have higher birth rates and lower life expectancies than developed countries.
3. Sample answer: The worldwide population is expected to continue to increase for the next 50 years and reach between 8 and 11 billion. The exact amount of increase is uncertain.
4. Sample answer: Efforts to limit population growth have worked in some places. Reducing population growth can reduce the impact on the environment and improve the quality of life. However, government control of fertility takes away personal freedoms.
5. Sample answer: There may be some cases where birth rates could impact people's economic status directly. An individual's economic status seems to have more of an influence on birth rates. Many other factors affect both the birth rates and the economic status of a nation.

Chapter 9 Review

Using Key Terms

1. Sample answer: Demography is the study of populations, particularly human populations.
2. Sample answer: The demographic transition is a model of
the changes in a region's population as it industrializes.
3. Sample answer: A rapid population increase can put stress on
the infrastructure of a city.
4. Sample answer: Least developed countries are identified as having high birth and death rates and low growth rates.
5. Age structure is the distribution of ages and sexes within a population at a particular time. Survivorship is the percentage of
members of a group that are likely to survive to a given age.
6. Infant mortality is the death rate of infants less than a year old. Life expectancy is the average number of years that a person is likely to live.
7. Fertility rate is the rate at which women are giving birth in a population. Death rate is the rate at
which members of a population are dying.
8. Urbanization is the movement of people into cities and urban areas. Migration is any movement of people from one area to another.

Understanding Key Ideas

9. c
10. b
11. a
12. c
13. c
14. d
15. a
16. b
17. d

Short Answer

18. Life expectancy has increased because of better nutrition, healthcare, clean water, and safe sewage disposal.
19. The age structure of a population

helps predict future population growth because it shows the number of people who are in child bearing years and the number who will be entering child bearing years.

20. Sample answer: A more educated population usually has a lower fertility rate because they often choose to have fewer children.

21. Birth rate, death rate, and overall population size are the factors that change during demographic transition.

22. The key resources affected by rapidly growing populations are fuelwood, water, and land.

23. Europe, northern America, Russia, South Korea, Thailand, China, Japan, Australia, and New Zealand are considered to be more developed. Southeast Asia, the Middle East, Central and South America, Africa, and India are generally less developed.

Interpreting Graphics

24. Africa and Latin America have only recently exceeded Europe and northern America in population size.

25. Europe is projected to decline in population size.

26. Answers may vary. Individual countries in any region may vary from the general trends. Some countries within a region are more developed than most of their neighbors. For example, Japan is wealthier and has a lower fertility rate than most other Asian countries.

Concept Mapping

27. Answers to the concept mapping questions are on pp. 715–720.

Critical Thinking

28. Answers may vary. There are many factors that can affect population changes. Diseases, famines, economic changes, war, and the availability of resources each could alter demographic trends.

29. Answers may vary. Human populations are different from wildlife in that they are widespread throughout the world, migrate more often and more freely over greater areas, and can manipulate their environment and exploit resources using tools and technology.

30. Answers may vary. Fertility rates might also be affected by culture, laws, personal choice, or the availability of healthcare.

31. Answers may vary. The model is useful in predicting the future because many different populations have demonstrated similar patterns of development. Critics could point out that the model is oversimplified. Countries may have different demographic trends.

Cross-Disciplinary Connection

32. Demographers study data such as birth rate, death rate, life expectancy, and migration. They can help governments plan for future development, private medical-aid organizations determine where assistance is needed, and insurance companies determine rates for premiums.

33. Answers may vary depending on the country that the student chooses.

Portfolio Project

34. Answers may vary.

Math Skills

35. The greatest changes were during the approximate periods of 1925–1935, 1941–1950, and 1962–1975.

36. Student graphs should look similar to the example graph but should have smooth curves.

37. Student graphs should show that the population keeps growing, but population growth accelerates during periods of high fertility and for about 20 years after. Population growth should slow down about 20 years after fertility declines. Population growth should be negative for about 20 years past periods in which the fertility rate is below the replacement level. Note that U.S. population growth has not followed these projections exactly, because of immigration and other variables.

Writing Skills

38. Answers may vary.

39. Answers may vary.

Reading Skills

1. c

2. a

Standardized Test Prep Answers

1. B
2. I
3. C
4. H
5. Answers will vary. See Test Doctor for detailed scoring rubric.
6. Answers will vary. See Test Doctor for detailed scoring rubric.
7. A
8. Answers will vary. See Test Doctor for detailed scoring rubric.
9. I
10. C
11. I
12. C