

1. In the United States, about \$5,200 per person per year is spent on health care, while in Britain the amount is about half that. A recent study indicated that middle-aged white Americans have a significantly higher rate of diabetes and heart disease than do middle-aged white Britons. Even after eliminating from the study the lifestyle differences of diet, exercise, smoking, and drinking, the data showed that the Americans have poorer health than their British counterparts. *The statements above, if true, best support which of the following assertions?*
 - A) Health care spending in the United States should be reduced by 50%.
 - b) More expensive health care causes a higher incidence of certain diseases.
 - c) The money spent on health care in the United States is not being used effectively.
 - d) The average health care spending for middle-aged white Americans is probably less than the average health care spending for Americans in general.
 - e) **Something other than diet, exercise, smoking, and drinking must account for the difference in health for the two groups in the study.**
2. Spokesperson: In the 2006 election of the city mayor, 55% of the voters were female. All the voters were between ages 18 and 70 and 2/3 of them supported the incumbent mayor. The incumbent mayor won the election with a substantially greater number of votes than any other candidate. *If the statements made by the Spokesperson are true, then which of the following must be true?*
 - A) At least 1/2 of the female voters supported the incumbent mayor.
 - b) The incumbent mayor received stronger support from the female voters than from the male voters.
 - c) There were no other candidates in the election who received more than 30% of all the votes.
 - d) **45% of the voters in the election were male and none of them were 75 years old.**
 - e) If the proportion of male and female voters in the city remains the same, the incumbent mayor is also likely to win the next election.
3. In 2003, the Making Hits Record Company spent 40% of its total budget on the production of ten albums, 30% of its budget on the marketing of these albums, and the remainder of its budget on overhead costs. In the same year, the Song Factory Record Company spent 20% of its total budget on the production of 10 albums and 60% of its budget on the marketing of these albums. Making Hits sold a total of 800,000 copies of the ten records it produced in 2003, while the Song Factory sold a total of 1,600,000 copies of the ten records it produced in 2003. *Assuming each company met its budget, which of the following conclusions is best supported by the information given above?*
 - A) The amount of money spent on marketing is directly related to the number of copies sold.
 - b) Making Hits spent more money on the production of its albums in 2003 than did the Song Factory.
 - c) Song Factory's total revenue from the sale of albums produced in 2003 was higher than that of Making Hits.
 - d) **In 2003, Making Hits spent a larger percentage of its budget on overhead costs than did the Song Factory.**
 - e) The Song Factory sold more copies of its 2003 albums than Making Hits did because the Song Factory spent a higher percentage of its budget on the marketing of its albums.

4. Due to high jet fuel costs, airline carriers are looking for new ways to increase revenues and thereby counteract declining profits. Airline A has proposed increasing the number of passengers that can fit on its airplanes by creating several standing room only “seats” in which passengers would be propped against a padded backboard and held in place with a harness. This proposal, since it relates to passenger safety, cannot be implemented without prior approval by the Federal Aviation Administration. *The above statements, if true, indicate that Airline A has made which of the following conclusions?*
- A) **The addition of standing room only “seats” will generate more revenue than the cost of ensuring that these seats meet safety standards.**
 - b) The Federal Aviation Administration will approve Airline A’s specific proposal.
 - c) The revenue generated by the addition of standing room only “seats” is greater than the current cost of jet fuel.
 - d) There are no safer ways in which Airline A can increase revenues.
 - e) Passenger safety is less important than increasing revenue.
5. A recent research study of undergraduate students analyzed the effects of music on human emotions. Each of the 200 participants attended at least 1 two-hour concert of classical music per week over the course of 12 weeks of their spring semester. At the end of the experiment, all of the students filled out a questionnaire assessing their emotional state. Based on the results of the questionnaires, all of the 10 students who attended the greatest number of concerts reported lower stress levels and higher satisfaction with their lives. Also, most of the 20 students who attended the fewest number of concerts reported below-average levels of emotional comfort. *Which of the following must be true based on the evidence presented above?*
- A) Most of the 200 participants improved their emotional state and lowered their stress levels.
 - b) During each week of the experiment, the participants spent at least 2 hours less on their academic work as a result of concert attendance.
 - c) Listening to classical music for at least 2 hours per week improves the emotional well-being of the majority of young adults.
 - d) **More than 6 participants attended at least 14 concerts during the course of the experiment.**
 - e) At least some of the students participated in the study in order to gain free access to classical concerts.
6. Columnist: The winner of this year’s national spelling bee won by correctly spelling the spoken word *Ursprache*, which means “fame” in German. Given the richness of our language, why must we resort to words taken from modern foreign languages to challenge our best spellers? *Ursprache* is listed in our dictionary, as are words from many other foreign languages, but future spelling bees should limit themselves to words in our dictionary that have been anglicized in all aspects because spelling English words, not knowledge of linguistics and international phonetics, is the point of these contests. *Which of the following can most reasonably be inferred from the argument above?*
- A) The spelling contest winner knew how to spell most of the anglicized words in the dictionary.
 - b) Foreign words are more difficult than anglicized words for all contestants to spell.
 - c) Spelling contestant winners should be determined by their facility with all aspects of language.

- d) To spell foreign words, contestants must recognize the language and know its pronunciation.
 - e) The English language contains more borrowed words than most other languages.
7. In Eastland, from 2000 to 2005, the total consumption of fish increased by 4.5 percent, and the total consumption of poultry products increased by 9.0 percent. During this time, the population of Eastland increased by 6 percent, in part due to new arrivals from surrounding areas. *Which of the following can one infer based on the statements above?*
- A) For new arrivals to Eastland between 2000 and 2005, fish was less likely to be a major part of families' diet than was poultry.
 - b) In 2005, the residents of Eastland consumed twice as much poultry as fish.
 - c) The per capita consumption of poultry in Eastland was higher in 2005 than it was in 2000.
 - d) Between 2000 and 2005, both fish and poultry products were a regular part of the diet of a significant proportion of Eastland residents.
 - e) Between 2000 and 2005, the profits of wholesale distributors of poultry products increased at a greater rate than did the profits of wholesale distributors of fish.
8. Everyone who has graduated from TopNotch High School has an intelligence quotient (IQ) of over 120. Most students with an IQ of over 120 and all students with an IQ of over 150 who apply to one or more Ivy League universities are accepted to at least one of them. *The statements above, if true, best support which of the following conclusions?*
- A) Every graduate of TopNotch High School with an IQ of 150 has been accepted to at least one Ivy-League school.
 - b) If a person is a high-school graduate and has an IQ of less than 100, he or she could not have been a student at TopNotch High School.
 - c) If a person has an IQ of 130 and is attending an Ivy-League school, it is possible for him or her to have graduated from TopNotch High School.
 - d) At least one graduate from TopNotch high school who has applied to at least one Ivy-League university has been accepted to one of them.
 - e) If a high-school graduate has an IQ of 150 and is not attending an Ivy-League school, then he or she did not apply to one of them.
9. According to a recent study on financial roles, one-third of high school seniors say that they have "significant financial responsibilities." These responsibilities include, but are not limited to, contributing to food, shelter, or clothing for themselves or their families. At the same time, a second study demonstrates that a crisis in money management exists for high school students. According to this study, 80% of high school seniors have never taken a personal finance class even though the same percentage of seniors has opened bank accounts and one-third of these account holders have bounced a check. *Which of the following conclusions can be properly drawn from the statements above?*
- A) High schools would be wise to incorporate personal finance classes into their core curricula.
 - b) At least one-third of high school seniors work part-time jobs after school.
 - c) The number of high school seniors with significant financial responsibilities is greater than the number of seniors who have bounced a check.
 - d) Any high school seniors who contribute to food, shelter, or clothing for themselves or their families have significant financial responsibilities.
 - e) The majority of high school students have no financial responsibilities to their families.

10. Analyst: Creative professionals, such as clothing designers, graphic designers, and decorators, often have very poor managerial skills and do not succeed when they try to run their own businesses. In fact, most of these creative types are less skilled in business than is the average white-collar professional who does not work in a creative field. Generally, creative talent and business acumen rarely go hand in hand. *If the analyst's argument is taken as true, which of the following statements can properly be concluded?*
- A) No successful businesspeople are creative.
 - b) **Some creative types are not less skilled at business than is the average white-collar worker who is not creative.**
 - c) Creativity precludes success in business.
 - d) Any white-collar worker who is not creative is more successful in business than any creative professional.
 - e) Business is not a creative endeavor.
11. Advocates insist that health savings accounts are an efficient method to reduce medical expenses. However, widespread adoption of these accounts will soon undermine the public's health. One reason for this is that most people will be reluctant to deplete their accounts to pay for regular preventive examinations, so that in **many cases a serious** illness will go undetected until it is far advanced. Another reason is that poor people, who will not be able to afford health savings accounts, will no longer receive vaccinations against infectious diseases. *The statements above, if true, most support which of the following?*
- A) Wealthy individuals will not be affected negatively by health savings accounts.
 - b) Private health insurance will no longer be available.
 - c) Most diseases are detected during regular preventive examinations.
 - d) **Some people without health savings accounts are likely to contract infectious diseases.**
 - e) The causal relationship between an individual's health and that person's medical care has been adequately documented.
12. Albinism is a rare genetic condition that inhibits the production of melanin, or pigmentation, in the skin and hair. People born with albinism are unusually susceptible to sunburn, melanoma, and a range of other health issues that are generally connected to excessive exposure to the sun. *The statements above, if true, provide the most support for which of the following conclusions?*
- A) People born with albinism develop other biological protections against melanoma and other sun-related health issues.
 - b) Humans with a high production of melanin can easily ignore health issues related to exposure to the sun.
 - c) When a non-albino person gets sunburn, the amount of melanin produced by that person decreases.
 - d) **In humans, melanin plays a role in protecting the skin from developing sunburn and other sun-related ailments.**
 - e) It is not possible for a person born with albinism to adopt other artificial protective measures against excessive exposure to the sun.

13. Celiac disease results from an inability of the digestive tract, specifically the small intestine, to absorb gluten, a protein found in wheat, barley, and certain other grains. The body's immune system attacks the gluten as if the protein were a harmful pathogen, often resulting in serious damage to the intestinal lining. People who suffer from celiac disease must eliminate gluten from their diets. Symptoms of the disease include abdominal cramps, bloating, and anemia. *If the statements above are true, which of the following assertions can be made on the basis of them?*
- A) Anyone who suffers from celiac disease will experience anemia.
 - b) Eliminating gluten from one's diet will cure celiac disease.
 - c) People experiencing abdominal cramps, bloating, and anemia have celiac disease.
 - d) Gluten is found only in grains.
 - e) The human body cannot always recognize harmless substances.
14. Mayville Airport and Newcomb Airport have the same number of flight departures each day. Mayville Airport experiences 26 departure delays per 100 flights, while Newcomb Airport experiences 20 departure delays per 100 flights. When delays caused by bad weather are disregarded, Mayville Airport has 5 fewer departure delays per 100 flights than Newcomb Airport does. *Which of the following conclusions is best supported by the information given above?*
- A) Bad weather causes a greater number of departure delays at Mayville Airport than at Newcomb Airport.
 - b) On average, the weather at Mayville Airport is worse than it is at Newcomb Airport.
 - c) Mechanical problems cause a greater number of delays at Newcomb Airport than at Mayville Airport.
 - d) The fleet of airplanes leaving from Newcomb Airport is better equipped to handle inclement weather than the fleet of airplanes leaving from Mayville Airport.
 - e) Mayville Airport experiences a greater number of arrival delays per 100 flights than Newcomb Airport does.
15. The head baker at Barry's Bagels can either purchase flour in-person from the local flour mill, Larry's Local Mill, or order a shipment of flour from an out-of-state mill, Isadore's Interstate Mill. The cost of the flour from Isadore's Interstate Mill is 10 percent less than the cost of the flour from Larry's Local Mill. Even after shipping and handling fees are added, it is still cheaper to order flour that has to be shipped from Isadore's than to buy flour locally from Larry's. *The statements above, if true, best support which of the following assertions?*
- A) Production costs at Isadore's Interstate Mill are 10 percent below those at Larry's Local Mill.
 - b) Buying flour from Isadore's Interstate Mill will eliminate 10 percent of the local flour mill jobs.
 - c) The shipping and handling fees for a batch of flour purchased from Isadore's Interstate Mill are less than 10 percent of the cost of an identical batch of flour purchased from Larry's Local Mill.
 - d) The shipping and handling fees for a batch of flour purchased from Isadore's Interstate Mill are more than 10 percent of the cost of Isadore's flour.
 - e) Isadore's Interstate Mill produces flour 10% more efficiently than Larry's Local Mill does.

16. Box office receipts for independent movies for the first half of this year have increased by 20 percent over the total receipts for independent movies for all of last year. Last year, 50 independent movies were released, while so far this year only 20 independent movies have been released. The number of independent movies slated for release in the second half of this year is roughly equal to the number released so far. *If the statements above are true, which of the following must be true?*
- A) The total box office receipts for independent movies this year will be significantly more than 20 percent greater than the receipts for independent movies last year.
 - b) The number of independent movies released in the first half of this year is equal to the number released in the first half of last year.
 - c) The price of a movie ticket has not increased since last year.
 - d) The average revenues of the independent films released during the first half of this year is greater than that of all independent films released last year.
 - e) The number of people seeing independent movies during the first half of this year is greater than the number who saw independent movies last year.
17. According to a recent magazine article, of those office employees who typically work 8 hours at the office each day but sometimes say that they will work at home on a particular day, 25 percent actually work less than one hour. At the same time, over 90 percent of those same office employees believe they are more productive working at home than working in their office. *The statements above, if true, best support which of the following conclusions about the office employees discussed in the article?*
- A) On average, the office employees working at home for a day work fewer hours than office employees working at the office.
 - b) 10 percent of the office employees are less productive working from home than working in their office.
 - c) At least 15 percent of the office employees do not define productivity exclusively in terms of the number of hours worked.
 - d) At least 25 percent of the office employees can complete the same amount of work in one hour at home as in 8 hours at the office.
 - e) Some of the office employees make statements regarding their productivity that are not in fact true.
18. On Monday, Daisy's Lemonade Stand sold lemonade at 20 cents per cup. The Lemon Shack sold lemonade at 30 cents per cup. At the end of the day, Daisy's Lemonade Stand and the Lemon Shack reported identical revenues and identical profits. *The statements above best support which of the following assertions?*
- A) On Monday, Daisy's Lemonade Stand sold fewer cups of lemonade than did the Lemon Shack.
 - b) The Lemon Shack sells higher quality lemonade than does Daisy's Lemonade Stand.
 - c) On Monday, Daisy's Lemonade Stand and the Lemon Shack incurred identical costs to run their businesses.
 - d) In general, lemonade consumers prefer the lemonade at Daisy's Lemonade Stand to the Lemonade at the Lemon Shack.
 - e) The Lemon Shack would not increase its revenues by lowering its prices.

19. Government restrictions have severely limited the amount of stem cell research American companies can conduct. Because of these restrictions, many American scientists who specialize in the field of stem cell research have signed long-term contracts to work for foreign companies. Recently, Congress has proposed lifting all restrictions on stem cell research. *Which of the following conclusions can most properly be inferred from the information above?*
- A) At least some foreign companies that conduct stem cell research work under fewer restrictions than some American companies do.
 - b) Because American scientists are under long-term contracts to foreign companies, there will be a significant influx of foreign professionals into the United States.
 - c) In all parts of the world, stem cell research is dependent on the financial backing of local government.
 - d) In the near future, American companies will no longer be at the forefront of stem cell research.
 - e) If restrictions on stem cell research are lifted, many of the American scientists will break their contracts to return to American companies.
20. As many as 98,000 people die each year due to medical error. In a campaign to reduce lethal errors, thousands of hospitals introduced six key changes, including rapid-response teams, re-checks of patient medication, and new guidelines for preventing infection. The campaign estimated that, over an 18-month period, more than 100,000 lives were saved as a direct result of the program. *Which of the following can be most properly inferred from the above statements?*
- A) Doctors and nurses should be more careful when doing their jobs.
 - b) The campaign saved all of the people who otherwise would have died due to medical error in that time period.
 - c) In the future, no one will die because of medical error.
 - d) If the campaign had not been implemented, more than 100,000 people might have died during the 18-month period due to medical error.
 - e) The key changes initiated by the campaign will continue to be implemented in the future.
21. Federal law prohibits businesses from reimbursing any employees for the cost of owning and operating a private aircraft that is used for business purposes. Thus, many American companies themselves purchase private aircraft. The vast majority of the business aviation fleet is owned by small and mid-size businesses, and flights are strictly for business purposes, with mostly mid-level employees on board. These companies and their boards of directors are in full compliance with the law and with what is best for their businesses. *Which of the following can be most properly inferred from the statements above?*
- A) The Federal law in question costs businesses money.
 - b) Most executives would rather fly on company owned planes than on commercial airlines.
 - c) Large businesses usually have their executives fly first or business class on commercial flights.
 - d) Upper level executives are less often in compliance with the law.
 - e) By not receiving any reimbursement for these flights, the mid-level executives on board are complying with the law.

22. Antoine: The alarming fact is that among children aged 19 years and younger, the number taking antipsychotic medicines soared 73 percent in the last four years. That is greater than the increase in the number of adults taking antipsychotic medicines during the same period. Lucy: But the use of antipsychotic drugs by adults is considered normal at the current rate of 11 adults per 1,000 taking the drugs. In contrast, the number of children on antipsychotic medication last year was 6.6 per 1,000 children. *Lucy's argument is structured to lead to which of the following as a conclusion?*
- A) The current level of antipsychotic drug use in children is abnormally high.
 - b) The fact that the number of children taking antipsychotic medicines increased 73 percent over the last four years is not an indication that the current level of use is abnormally high.
 - c) If only 6.6 out of every 1,000 children are taking an antipsychotic medication, the increase in the use of such medicines cannot be the percentage Antoine cites.
 - d) It is unlikely that the increase in the use of antipsychotic medicines by children will continue at the same rate.
 - e) If the number of children taking antipsychotic drugs is given as a certain number, the actual rate of such drug use is even higher.
23. The ability to analyze genomes — sequences of DNA — has grown more and more sophisticated. Scientists are able to examine the biological past in finer detail and with greater accuracy. A new analysis of the genetic links between early humans and chimpanzees has led to a hypothesis that the two species diverged more recently than previous estimates indicated. This gives credence to a very startling new theory: the ancestors of humans and chimpanzees might have hybridized to produce the lineage from which modern humans eventually developed. *What can be inferred from the statements above?*
- A) Hybridized species combine the best of both lineages.
 - b) Political and religious pressures will affect the course of future research.
 - c) Future research will enable scientists to determine the exact characteristics of this hybrid ancestor of modern man.
 - d) Earlier genome analysis established genetic links between early humans and chimpanzees.
 - e) Human DNA is more complex than that of chimpanzees.
24. The restaurant business wastes more energy than any other industry in the United States. Nearly 80 percent of the \$10 billion spent on energy by the restaurant industry each year is squandered by the use of inefficient equipment. At the same time, approximately 70 percent of restaurants in the United States are small businesses that are usually too cash poor to invest in energy-efficient technology. *Which of the following statements draws the most reliable conclusion from the information above?*
- A) The availability of energy-efficient equipment will reduce the energy costs of the restaurant industry by approximately 30 percent.
 - b) No industry in the United States spends greater than \$10 billion each year on energy.
 - c) By using energy-efficient technology, a small restaurant will reduce its expenses by a greater percentage than will a large restaurant.
 - d) Approximately \$2 billion of the amount spent on energy each year by the restaurant industry is not squandered.

- e) The replacement of inefficient equipment represents the largest potential source of energy savings for the restaurant industry.

25. Under a new clean air proposal, the government has decided to tighten controls on the release of certain toxic chemicals, including benzene, formaldehyde, and other carcinogens, by chemical plants. The stated purpose of this proposal is to reduce cancers caused by air pollution. Yet, the chemical industry, rather than the government, is responsible for monitoring the implementation of the proposal. If the past actions of certain polluters in the chemical industry are any indication of future behavior, the net result of the new proposal will be an increase, rather than a decrease, in carcinogens released into the air. *The author is arguing that ____.*

- A) no chemical companies can be trusted to follow the clean air proposal
- b) the chemical industry is responsible for releasing the majority of carcinogens into the air
- c) allowing self-monitoring for the new clean air proposal will result in the opposite of its intended consequence
- d) to ensure effective implementation, the government should always monitor the execution of its proposals
- e) benzene and formaldehyde are two of the most hazardous cancer-causing chemicals

26. Since 1995, Congress has exempted oil companies that have leases issued by the federal government allowing them to drill for deep-water oil off the Gulf of Mexico from royalty payments as an incentive to spur development in times of low oil and gas prices. These leases were supposed to have included a provision that reinstates the royalties should the market prices of oil and gas exceed a certain level. Because of an error by the federal government, however, the language that reinstates the royalties is missing from the more than 1,100 leases issued by the U.S. government in 1998 and 1999. Since the market price of oil and gas has recently risen far above the threshold levels, this error could allow the oil companies to reap a windfall of more than \$10 billion through the life of the leases. In response, the government is pressuring the oil companies to renegotiate the leases. The executives of the oil companies strongly oppose renegotiation; all have issued statements stating that they expect the government to honor the terms of the contracts and that renegotiating a duly signed agreement would set a bad precedent. *Which of the following statements best reflects the position of the oil company executives?*

- A) Opportunity seldom knocks twice.
- b) Do unto others as you would have done unto you.
- c) One man's loss is another man's gain.
- d) You don't change the rules in the middle of the game.
- e) Revenge is so sweet.

27. Only those students who maintain 2.5 grade point averages are allowed to participate in school sports. Amy is captain of the school's tennis team, so she must have at least a 2.5 GPA. *Which of the following statements best summarizes the main point of the above argument?*

- A) Students who don't maintain a 2.5 GPA can't participate in sports.
- b) Amy is a good tennis player.
- c) The school should only require a minimum GPA of 2.0 to participate in sports.

- d) Amy has earned at least the minimum GPA required to participate on a school sports team.
- e) Amy wouldn't be captain of the tennis team if her GPA were lower.

28. Companies are often torn between the benefits of focusing on one major product or service and the drawbacks of relying too heavily on one primary source of income. While narrow focus can provide a company with an advantage over competitors that offer a wider range of products or services, an undiversified income stream can leave a company susceptible to major fluctuations in cash flow. We can see this tension realized when, for example, _____. Which of the following best completes the passage below?

- A) a local messenger service known for its speedy deliveries is forced to lay off twenty percent of its work force after a rise in local taxes encourages many local businesses to move out of state
- b) an advertising agency loses one of its clients
- c) a holding company that owns a car rental agency and a national doughnut chain is now interested in purchasing a professional basketball team
- d) a construction company opts to use non-union labor to increase its profits
- e) a specialty sandwich store decides to open franchises throughout the country that will focus on using local ingredients

29. Calorie restriction, a diet high in nutrients but low in calories, is known to prolong the life of rats and mice by preventing heart disease, cancer, diabetes, and other diseases. A six-month study of 48 moderately overweight people, who each reduced their calorie intake by at least 25 percent, demonstrated decreases in insulin levels and body temperature, with the greatest decrease observed in individuals with the greatest percentage change in their calorie intake. Low insulin level and body temperature are both considered signs of longevity, partly because an earlier study by other researchers found both traits in long-lived people. If the above statements are true, they support which of the following inferences?

- A) Calorie restriction produces similar results in humans as it does in rats and mice.
- b) Humans who reduce their calorie intake by at least 25 percent on a long-term basis will live longer than they would have had they not done so.
- c) Calorie intake is directly correlated to insulin level in moderately overweight individuals.
- d) Individuals with low insulin levels are healthier than individuals with high insulin levels.
- e) Some individuals in the study reduced their calorie intake by more than 25 percent.

30. Last January, in an attempt to lower the number of traffic fatalities, the state legislature passed its "Click It or Ticket" law. Under the new law, motorists can be pulled over and ticketed for not wearing their seat belts, even if an additional driving infraction has not been committed. Lawyers and citizens' groups are already protesting the law, saying it unfairly infringes on the rights of the state's drivers. Law enforcement groups counter these claims by stating that the new regulations will save countless additional lives. Which of the following inferences is best supported by the passage above?

- A) Prior to the "Click It or Ticket" law, motorists could not be stopped simply for not wearing a seat belt.
- b) The "Click It or Ticket" law violates current search and seizure laws.
- c) Laws similar to "Click It or Ticket" have effectively reduced traffic fatalities in a number of states.

- d) The previous seatbelt laws were ineffective in saving lives.
 - e) Law enforcement groups, rather than citizens groups, should determine how to best ensure the safety of motorists.
31. In a certain state, hunting permits require the hunter to be at least 18 years old, possess a valid driver's license or state identification, and have completed a safety program within the past 5 years. The hunter must also sign a legal document pledging not to consume alcohol while hunting. *Which of the following can be correctly inferred from the above statements?*
- A) All states have the same requirements for hunting permits.
 - b) Hunters under the age of 21 don't need to sign the alcohol pledge because they are not legally allowed to drink alcohol under any circumstances.
 - c) If a person last completed the safety program six years ago, he will have to complete the program again before he can be eligible for a permit.
 - d) Someone who isn't 18 years old cannot obtain a hunting permit in this state.
 - e) Hunting is such a dangerous activity that state controls and requirements are necessary to ensure that nobody gets hurt.
32. The public often protests when an unregulated service industry is found to be corrupt. However, regulation often leads to increased costs for the consumer. Fewer companies survive in a regulated market, leading to decreased competition and higher prices. The public then responds negatively to the increased costs of these services. *The statements above best support which of the following?*
- A) Service industries should not be regulated.
 - b) The public should not protest unregulated services.
 - c) Only unregulated services are subject to public protest.
 - d) The public is sometimes the cause of its own complaints.
 - e) Decreased competition always leads to increased prices.
33. A certain medication used to treat migraine headaches acts by blocking pain receptors in the brain. When a person takes the medication within one hour after ingesting grapefruit or grapefruit juice, however, the effectiveness of the medication is significantly diminished. Researchers have determined that the grapefruit contains a compound that alters the shape of the pain receptors, with the result that the medication can no longer bind with them completely. *Which of the following conclusions could be most properly drawn from the information given above?*
- A) If one takes the medication more than an hour after ingesting grapefruit, its effectiveness is not diminished.
 - b) Ingesting grapefruit after taking the medication does not diminish the effectiveness of the medication.
 - c) There is only one type of pain receptor in the brain.
 - d) The medication is fully effective only when it properly binds with its target pain receptors.
 - e) It is not possible to design a medication for migraine headaches that can bond with the altered receptors.
34. Educator: Like any other difficult pursuit, music requires intense study and practice in order for one to become proficient. But many school music programs encourage only children who

demonstrate early aptitude to continue studying music, while children who are not especially musical are directed towards other activities. Having learned to think of themselves as musically inept, these children do not devote any time to music and thus deprive themselves of the opportunity to develop a latent talent. ***The educator's statements, if true, would best support which of the following conclusions?***

- A) Music education should not devote special attention to talented students.
- b) Everyone has the potential to learn music.
- c) Talent is not always apparent at an early age.
- d) Children are particularly sensitive to criticism from adults.
- e) All children should study music.

35. Improved technology and equipment often result in fewer injuries during high-risk activities such as rock climbing and scuba diving. But participant education also plays a large role in reducing the number of injuries sustained during these activities. People who are poorly trained in these activities run a much higher risk of injury even if provided with the latest and best equipment. ***Which of the following can be properly inferred from the information above?***

- A) Training is a more important safety factor than equipment in high-risk activities.
- b) People who are properly trained in their activities do not sustain injuries.
- c) The safety benefits of the latest equipment can be offset by inadequate preparation.
- d) Rock climbing and scuba diving are more risky than any other activities.
- e) People with the latest equipment often neglect proper training.

36. The new heart scans offer patients significant benefits. They can be completed in a fraction of the time required for an angiogram, with no recovery time necessary. Furthermore, the scans are more sensitive and can identify problem areas that an angiogram might not perceive. However, heart scans use more radiation than most diagnostic procedures, and can cause undue concern over and treatment for the harmless abnormalities often picked up by such sensitive technology. ***Which of the following conclusions is best supported by the statements above?***

- A) A heart scan is safer than an angiogram procedure.
- b) Patients should not be concerned about heart abnormalities that appear in a heart scan.
- c) A heart scan could result in indirect harm by causing a patient to undergo risky, unnecessary procedures.
- d) An angiogram is the more appropriate of the two procedures for most patients.
- e) The heart scan is a more expensive procedure than the angiogram.

1. The importance of the ozone layer to terrestrial animals is that it entirely filters out some wavelengths of light but lets others through. Holes in the ozone layer and the dangers associated with these holes are well documented. However, one danger that has not been given sufficient attention is that these holes could lead to severe eye damage for animals of many species. Which one of the following is most strongly supported by the statements above, if they are true?

- A) All wavelengths of sunlight that can cause eye damage are filtered out by the ozone layer where it is intact.
 - b) Few species of animals live on a part of the earth's surface that is not threatened by holes in the ozone layer.
 - c) Some species of animals have eyes that will not suffer any damage when exposed to unfiltered sunlight.
 - d) A single wavelength of sunlight can cause severe damage to the eyes of most species of animals.
 - e) Some wavelengths of sunlight that cause eye damage are more likely to reach the earth's surface where there are holes in the ozone layer than where there are not.
2. One of the most vexing problems in historiography is dating an event when the usual sources offer conflicting chronologies of the event. Historians should attempt to minimize the number of competing sources, perhaps by eliminating the less credible ones. Once this is achieved and several sources are left, as often happens, historians may try, though on occasion unsuccessfully, to determine independently of the usual sources which date is more likely to be right. Which one of the following inferences is most strongly supported by the information above?
- A) We have no plausible chronology of most of the events for which attempts have been made by historians to determine the right date.
 - b) Some of the events for which there are conflicting chronologies and for which attempts have been made by historians to determine the right date cannot be dated reliably by historians.
 - c) Attaching a reliable date to any event requires determining which of several conflicting chronologies is most likely to be true.
 - d) Determining independently of the usual sources which of several conflicting chronologies is more likely to be right is an ineffective way of dating events.
 - e) The soundest approach to dating an event for which the usual sources give conflicting chronologies is to undermine the credibility of as many of these sources as possible.
3. In an experiment, two-year-old boys and their fathers made pie dough together using rolling pins and other utensils. Each father-son pair used a rolling pin that was distinctively different from those used by the other father-son pairs, and each father repeated the phrase "rolling pin" each time his son used it. But when the children were asked to identify all of the rolling pins among a group of kitchen utensils that included several rolling pins, each child picked only the one that he had used. Which one of the following inferences is most supported by the information above?
- A) The children did not grasp the function of a rolling pin.
 - b) No two children understood the name "rolling pin" to apply to the same object.
 - c) The children understood that all rolling pins have the same general shape.
 - d) Each child was able to identify correctly only the utensils that he had used.
 - e) The children were not able to distinguish the rolling pins they used from other rolling pins.
4. The increasing complexity of scientific inquiry has led to a proliferation of multi-authored technical articles. Reports of clinical trials involving patients from several hospitals are usually coauthored by physicians from each participating hospital. Likewise, physics papers reporting results from experiments using subsystems developed at various laboratories

generally have authors from each laboratory. If all of the statements above are true, which one of the following must be true?

- A) Clinical trials involving patients from several hospitals are never conducted solely by physicians from just one hospital.
 - b) Most reports of clinical trials involving patients from several hospitals have multiple authors.
 - c) When a technical article has multiple authors, they are usually from different institutions.
 - d) Physics papers authored by researchers from multiple laboratories usually report results from experiments using subsystems developed at each laboratory.
 - e) Most technical articles are authored solely by the researchers who conducted the experiments these articles report.
5. Some environmentalists question the prudence of exploiting features of the environment, arguing that there are no economic benefits to be gained from forests, mountains, or wetlands that no longer exist. Many environmentalists claim that because nature has intrinsic value it would be wrong to destroy such features of the environment, even if the economic costs of doing so were outweighed by the economic costs of not doing so. Which one of the following can be logically inferred from the passage?
- A) It is economically imprudent to exploit features of the environment.
 - b) Some environmentalists appeal to a non-economic justification in questioning the defensibility of exploiting features of the environment.
 - c) Most environmentalists appeal to economic reasons in questioning the defensibility of exploiting features of the environment.
 - d) Many environmentalists provide only a non-economic justification in questioning the defensibility of exploiting features of the environment.
 - e) Even if there is no economic reason for protecting the environment, there is a sound non-economic justification for doing so.
6. Some argue that laws are instituted at least in part to help establish a particular moral fabric in society. But the primary function of law is surely to help order society so that its institutions, organizations, and citizenry can work together harmoniously, regardless of any further moral aims of the law. Indeed, the highest courts have on occasion treated moral beliefs based on conscience or religious faith as grounds for making exceptions in the application of laws. The statements above, if true, most strongly support which one of the following?
- A) The manner in which laws are applied sometimes takes into account the beliefs of the people governed by those laws.
 - b) The law has as one of its functions the ordering of society but is devoid of moral aims.
 - c) Actions based on religious belief or on moral conviction tend to receive the protection of the highest courts.
 - d) The way a society is ordered by law should not reflect any moral convictions about the way society ought to be ordered.
 - e) The best way to promote cooperation among a society's institutions, organizations, and citizenry is to institute order in that society by means of law.
7. Newtonian physics dominated science for over two centuries. It found consistently successful application, becoming one of the most highly substantiated and accepted theories

in the history of science. Nevertheless, Einstein's theories came to show the fundamental limits of Newtonian physics and to surpass the Newtonian view in the early 1900s, giving rise once again to a physics that has so far enjoyed wide success. Which one of the following logically follows from the statements above?

- A) The history of physics is characterized by a pattern of one successful theory subsequently surpassed by another.
 - b) Long-standing success or substantiation of a theory of physics is no guarantee that the theory will continue to be dominant indefinitely.
 - c) Every theory of physics, no matter how successful, is eventually surpassed by one that is more successful.
 - d) Once a theory of physics is accepted, it will remain dominant for centuries.
 - e) If a long-accepted theory of physics is surpassed, it must be surpassed by a theory that is equally successful.
8. The solidity of bridge piers built on pilings depends largely on how deep the pilings are driven. Prior to 1700, pilings were driven to "refusal," that is, to the point at which they refused to go any deeper. In a 1588 inquiry into the solidity of piers for Venice's Rialto Bridge, it was determined that the bridge's builder, Antonio Da Ponte, had met the contemporary standard for refusal: he had caused the pilings to be driven until additional penetration into the ground was no greater than two inches after twenty-four hammer blows. Which one of the following can properly be inferred from the passage?
- A) The Rialto Bridge was built on unsafe pilings.
 - b) The standard of refusal was not sufficient to ensure the safety of a bridge.
 - c) Da Ponte's standard of refusal was less strict than that of other bridge builders of his day.
 - d) After 1588, no bridges were built on pilings that were driven to the point of refusal.
 - e) It is possible that the pilings of the Rialto Bridge could have been driven deeper even after the standard of refusal had been met.
9. Every moral theory developed in the Western tradition purports to tell us what a good life is. However, most people would judge someone who perfectly embodied the ideals of any one of these theories not to be living a good life—the kind of life they would want for themselves and their children. The statements above, if true, most strongly support which one of the following?
- A) Most people desire a life for themselves and their children that is better than a merely good life.
 - b) A person who fits the ideals of one moral theory in the Western tradition would not necessarily fit the ideals of another.
 - c) Most people have a conception of a good life that does not match that of any moral theory in the Western tradition.
 - d) A good life as described by moral theories in the Western tradition cannot be realized.
 - e) It is impossible to develop a theory that accurately describes what a good life is.
10. Mystery stories often feature a brilliant detective and the detective's dull companion. Clues are presented in the story, and the companion wrongly infers an inaccurate solution to the mystery using the same clues that the detective uses to deduce the correct solution. Thus, the author's strategy of including the dull companion gives readers a chance to solve the mystery

while also diverting them from the correct solution. Which one of the following is most strongly supported by the information above?

- A) Most mystery stories feature a brilliant detective who solves the mystery presented in the story.
- b) Mystery readers often solve the mystery in a story simply by spotting the mistakes in the reasoning of the detective's dull companion in that story.
- c) Some mystery stories give readers enough clues to infer the correct solution to the mystery.
- d) The actions of the brilliant detective in a mystery story rarely divert readers from the actions of the detective's dull companion.
- e) The detective's dull companion in a mystery story generally uncovers the misleading clues that divert readers from the mystery's correct solution.

11. Cézanne's art inspired the next generation of artists, twentieth-century modernist creators of abstract art. While most experts rank Cézanne as an early modernist, a small few reject this idea. Françoise Cachin, for example, bluntly states that such an ascription is "overplayed," and says that Cézanne's work is "too often observed from a modern point of view." Which one of the following statements is most strongly supported by the information above?

- A) Cézanne's work is highly controversial.
- b) Cézanne was an early creator of abstract art.
- c) Cézanne's work helped to develop modernism.
- d) Modern art owes less to Cézanne than many experts believe.
- e) Cézanne's work tends to be misinterpreted as modernist.

12. Light is registered in the retina when photons hit molecules of the pigment rhodopsin and change the molecules' shape. Even when they have not been struck by photons of light, rhodopsin molecules sometimes change shape because of normal molecular motion, thereby introducing error into the visual system. The amount of this molecular motion is directly proportional to the temperature of the retina. Which one of the following conclusions is most strongly supported by the information above?

- A) The temperature of an animal's retina depends on the amount of light the retina is absorbing.
- b) The visual systems of animals whose body temperature matches that of their surroundings are more error-prone in hot surroundings than in cold ones.
- c) As the temperature of the retina rises, rhodopsin molecules react more slowly to being struck by photons.
- d) Rhodopsin molecules are more sensitive to photons in animals whose retinas have large surface areas than in animals whose retinas have small surface areas.
- e) Molecules of rhodopsin are the only pigment molecules that occur naturally in the retina.

13. Flavonoids are a common component of almost all plants, but a specific variety of flavonoid in apples has been found to be an antioxidant. Antioxidants are known to be a factor in the prevention of heart disease. Which one of the following can be properly inferred from the passage?

- A) A diet composed largely of fruits and vegetables will help to prevent heart disease.
- b) Flavonoids are essential to preventing heart disease.
- c) Eating at least one apple each day will prevent heart disease.
- d) At least one type of flavonoid helps to prevent heart disease.

- e) A diet deficient in antioxidants is a common cause of heart disease.
14. Sharks have a higher ratio of cartilage mass to body mass than any other organism. They also have a greater resistance to cancer than any other organism. Shark cartilage contains a substance that inhibits tumor growth by stopping the development of a new blood network. In the past 20 years, none of the responses among terminal cancer patients to various therapeutic measures has been more positive than the response among those who consumed shark cartilage. ***If the claims made above are true, then each of the following could be true EXCEPT:***
- A) No organism resists cancer better than sharks do, but some resist cancer as well as sharks.
 - b) The organism most susceptible to cancer has a higher percentage of cartilage than some organisms that are less susceptible to cancer.
 - c) The substance in shark cartilage that inhibits tumor growth is found in most organisms.
 - d) In the past 20 years many terminal cancer patients have improved dramatically following many sorts of therapy
 - e) Some organisms have immune systems more efficient than a shark's immune system.
15. Good students learn more than what their parents and teachers compel them to learn. This requires that these students derive pleasure from the satisfaction of their curiosity, and one cannot experience such pleasure unless one is capable of concentrating on a topic so intently that one loses track of one's own identity. If the statements above are true, each of the following could also be true EXCEPT:
- a) Some people who are capable of becoming so absorbed in a topic that they lose track of their own identities are nevertheless incapable of deriving pleasure from the satisfaction of their curiosity.
 - b) Most good students do not derive pleasure from the satisfaction of their curiosity.
 - c) Many people who derive pleasure simply from the satisfaction of their curiosity are not good students.
 - d) Some people who are not good students derive pleasure from losing track of their own identities.
 - e) Most people who are capable of becoming so absorbed in a topic that they lose track of their own identities are not good students.
16. For a ten-month period, the total monthly sales of new cars within the country of Calistan remained constant. During this period the monthly sales of new cars manufactured by Marvel Automobile Company doubled, and its share of the new car market within Calistan increased correspondingly. At the end of this period, emission standards were imposed on new cars sold within Calistan. During the three months following this imposition, Marvel Automobile Company's share of the Calistan market declined substantially even though its monthly sales within Calistan remained constant at the level reached in the last month of the ten-month period. If the statements above are true, which one of the following CANNOT be true?
- a) The total monthly sales within Calistan of new cars by companies other than Marvel Automobile Company decreased over the three months following the imposition of the emission standards.

- b) Over the three months before the imposition of the emission standards, the combined market share of companies other than Marvel Automobile Company selling new cars in Calistan decreased.
 - c) If the emission standards had not been imposed, Marvel Automobile Company would have lost an even larger share of the number of new cars sold in Calistan than, in fact, it did.
 - d) A decrease in the total monthly sales of new cars within Calistan will occur if the emission standards remain in effect.
 - e) Since the imposition of the emission standards, Marvel Automobile Company's average profit on each new car sold within Calistan has increased.
17. Two things are true of all immoral actions. First, if they are performed in public, they offend public sensibilities. Second, they are accompanied by feelings of guilt. If all the statements above are true, then which one of the following must be false?
- a) Some immoral actions that are not performed in public are not accompanied by feelings of guilt.
 - b) Immoral actions are wrong solely by virtue of being accompanied by feelings of guilt.
 - c) Some actions that offend public sensibilities if they are performed in public are not accompanied by feelings of guilt.
 - d) Some actions that are accompanied by feelings of guilt are not immoral, even if they frequently offend public sensibilities.
 - e) Every action performed in public that is accompanied by feelings of guilt is immoral.
18. Journalist: A free marketplace of ideas ensures that all ideas get a fair hearing. Even ideas tainted with prejudice and malice can prompt beneficial outcomes. In most countries, however, the government is responsible for over half the information released to the public through all media. For this reason, the power of governments over information needs to be curtailed. Everyone grants that governments should not suppress free expression, yet governments continue to construct near monopolies on the publication and dissemination of enormous amounts of information. Which one of the following most accurately expresses the conclusion of the journalist's argument?
- a) The freedom of the marketplace of ideas is in jeopardy.
 - b) Preserving a free marketplace of ideas is important.
 - c) The control that governments have over information needs to be reduced.
 - d) Ideas that have malicious content or stem from questionable sources can be valuable.
 - e) Governments have near monopolies on the dissemination of many kinds of information.
19. I agree that Hogan's actions resulted in grievous injury to Winters. And I do not deny that Hogan fully realized the nature of his actions and the effects that they would have. Indeed, I would not disagree if you pointed out that intentionally causing such effects is reprehensible, other things being equal. But in asking you to concur with me that Hogan's actions not be wholly condemned I emphasize again that Hogan mistakenly believed Winters to be the robber who had been terrorizing west-side apartment buildings for the past several months. Which one of the following most accurately expresses the conclusion of the argument?
- a) Hogan should not be considered responsible for the injuries sustained by Winters.
 - b) The robber who had been terrorizing west-side apartment buildings should be considered to be as responsible for Winters's injuries as Hogan.

- c) The actions of Hogan that seriously injured Winters are not completely blameworthy.
 - d) Hogan thought that Winters was the person who had been terrorizing west-side apartment buildings for the last few months.
 - e) The actions of Hogan that seriously injured Winters were reprehensible, other things being equal.
20. Last month OCF, Inc., announced what it described as a unique new product: an adjustable computer workstation. Three days later ErgoTech unveiled an almost identical product. The two companies claim that the similarities are coincidental and occurred because the designers independently reached the same solution to the same problem. The similarities are too fundamental to be mere coincidence, however. The two products not only look alike, but they also work alike. Both are oddly shaped with identically placed control panels with the same types of controls. Both allow the same types of adjustments and the same types of optional enhancements. The main point of the argument is that
- a) the two products have many characteristics in common
 - b) ErgoTech must have copied the design of its new product from OCF's design
 - c) the similarities between the two products are not coincidental
 - d) product designers sometimes reach the same solution to a given problem without consulting each other
 - e) new products that at first appear to be unique are sometimes simply variations of other products
21. Prediction, the hallmark of natural sciences, appears to have been possible by reducing phenomena to mathematical expressions. Some social scientists also want the power to predict accurately and assume they ought to perform the same reduction. But this would be a mistake; it would neglect data that are not easily mathematized and thereby would only distort the social phenomena. Which one of the following most accurately expresses the main conclusion of the argument?
- a) The social sciences do not have as much predictive power as the natural sciences.
 - b) Mathematics plays a more important role in the natural sciences than it does in the social sciences.
 - c) There is a need in the social sciences to improve the ability to predict.
 - d) Phenomena in the social sciences should not be reduced to mathematical formulas.
 - e) Prediction is responsible for the success of the natural sciences.
22. Psychologist: Although studies of young children have revealed important facts about the influence of the environment on language acquisition, it is clear that one cannot attribute such acquisition solely to environmental influences: innate mechanisms also play a role. So, the most reasonable question that ought to be studied is whether _____. Which one of the following most logically completes the passage?
- a) language acquisition can ever be fully explained
 - b) innate mechanisms are a contributing factor in language learning
 - c) language acquisition is solely the product of innate mechanisms
 - d) parents and peers are the most important influence on a child's learning of a language
 - e) innate mechanisms play a more important role in language acquisition than a child's immediate environment

23. People with serious financial problems are so worried about money that they cannot be happy. Their misery makes everyone close to them—family, friends, and colleagues—unhappy as well. Only if their financial problems are solved can they and those around them be happy. Which one of the following statements can be properly inferred from the passage?
- a) Only serious problems make people unhappy.
 - b) People who solve their serious financial problems will be happy.
 - c) People who do not have serious financial problems will be happy.
 - d) If people are unhappy, they have serious financial problems.
 - e) If people are happy, they do not have serious financial problems.
24. Some types of organisms originated through endosymbiosis, the engulfing of one organism by another so that a part of the former becomes a functioning part of the latter. An unusual nucleomorph, a structure that contains DNA and resembles a cell nucleus, has been discovered within a plant known as a chlorarachniophyte. Two versions of a particular gene have been found in the DNA of this nucleomorph, and one would expect to find only a single version of this gene if the nucleomorph were not the remains of an engulfed organism's nucleus. Which one of the following is most strongly supported by the information above?
- a) Only organisms of types that originated through endosymbiosis contain nucleomorphs.
 - b) A nucleomorph within the chlorarachniophyte holds all of the genetic material of some other organism.
 - c) Nucleomorphs originated when an organism endosymbiotically engulfed a chlorarachniophyte.
 - d) Two organisms will not undergo endosymbiosis unless at least one of them contains a nucleomorph.
 - e) Chlorarachniophytes emerged as the result of two organisms having undergone endosymbiosis.
25. If you have no keyboarding skills at all, you will not be able to use a computer. And if you are not able to use a computer, you will not be able to write your essays using a word processing program. If the statements above are true, which one of the following must be true?
- a) If you have some keyboarding skills, you will be able to write your essays using a word processing program.
 - b) If you are not able to write your essays using a word processing program, you have no keyboarding skills.
 - c) If you are able to write your essays using a word processing program, you have at least some keyboarding skills.
 - d) If you are able to use a computer, you will probably be able to write your essays using a word processing program.
 - e) If you are not able to write your essays using a word processing program, you are not able to use a computer.
26. The axis of Earth's daily rotation is tilted with respect to the plane of its orbit at an angle of roughly 23 degrees. That angle can be kept fairly stable only by the gravitational influence of Earth's large, nearby Moon. Without such a stable and moderate axis tilt, a planet's climate

is too extreme and unstable to support life. Mars, for example, has only very small moons, tilts at wildly fluctuating angles, and cannot support life. If the statements above are true, which one of the following must also be true on the basis of them?

- a) If Mars had a sufficiently large nearby moon, Mars would be able to support life.
 - b) If Earth's Moon were to leave Earth's orbit Earth's climate would be unable to support life.
 - c) Any planet with a stable, moderate axis tilt can support life.
 - d) Gravitational influences other than moons have little or no effect on the magnitude of the tilt angle of either Earth's or Mars's axis.
 - e) No planet that has more than one moon can support life.
27. Editorialist: Drivers with a large number of demerit points who additionally have been convicted of a serious driving-related offense should either be sentenced to jail or be forced to receive driver reeducation, since to do otherwise would be to allow a crime to go unpunished. Only if such drivers are likely to be made more responsible drivers should driver re-education be recommended for them. Unfortunately, it is always almost impossible to make drivers with a large number of demerit points more responsible drivers. If the editorialist's statements are true, they provide the most support for which one of the following?
- a) Drivers with a large number of demerit points who have been convicted of a serious driving-related offense should be sent to jail.
 - b) Driver re-education offers the best chance of making drivers with a large number of demerit points responsible drivers.
 - c) Driver re-education is not a harsh enough punishment for anyone convicted of a serious driving-related offense who has also accumulated a large number of demerit points.
 - d) Driver re-education should not be recommended for those who have committed no serious driving-related offenses.
 - e) Drivers with a large number of demerit points but no conviction for a serious driving-related offense should receive driver re-education rather than jail.
28. Muscular strength is a limited resource, and athletic techniques help to use this resource efficiently. Since top athletes do not differ greatly from each other in muscular strength, it follows that a requirement for an athlete to become a champion is a superior mastery of athletic techniques. Which one of the following most accurately expresses the conclusion of the argument?
- a) Only champion athletes have a superior mastery of athletic techniques.
 - b) Superior muscular strength is a requirement for an athlete to become a champion.
 - c) No athlete can become a champion without a superior mastery of athletic techniques.
 - d) The differences in muscular strength between top athletes are not great.
 - e) Athletic techniques help athletes use limited resources efficiently.
29. If there are any inspired musical performances in the concert, the audience will be treated to a good show. But there will not be a good show unless there are sophisticated listeners in the audience, and to be a sophisticated listener one must understand one's musical roots. If all of the statements above are true, which one of the following must also be true?
- a) If there are no sophisticated listeners in the audience, then there will be no inspired musical performances in the concert.

- b) No people who understand their musical roots will be in the audience if the audience will not be treated to a good show.
 - c) If there will be people in the audience who understand their musical roots, then at least one musical performance in the concert will be inspired.
 - d) The audience will be treated to a good show unless there are people in the audience who do not understand their musical roots.
 - e) If there are sophisticated listeners in the audience, then there will be inspired musical performances in the concert.
30. A politician can neither be reelected nor avoid censure by his or her colleagues if that politician is known to be involved in any serious scandals. Several prominent politicians have just now been shown to be involved in a conspiracy that turned into a serious scandal. These politicians will therefore not be reelected. If the statements above are all true, which one of the following statements must also be true?
- a) The prominent politicians cannot escape censure by their colleagues.
 - b) If there had been no scandal, the prominent politicians would be reelected.
 - c) No politician is censured unless he or she is known to be involved in a serious scandal.
 - d) The prominent politicians initially benefited from the conspiracy that caused the scandal.
 - e) Some politicians who are involved in scandalous conspiracies avoid detection and censure.
31. Leachate is a solution, frequently highly contaminated, that develops when water permeates a landfill site. If and only if the landfill's capacity to hold liquids is exceeded does the leachate escape into the environment, generally in unpredictable quantities. A method must be found for disposing of leachate. Most landfill leachate is sent directly to sewage treatment plants, but not all sewage plants are capable of handling the highly contaminated water. Which one of the following can be inferred from the passage?
- a) The ability to predict the volume of escaping landfill leachate would help solve the disposal problem.
 - b) If any water permeates a landfill, leachate will escape into the environment.
 - c) No sewage treatment plants are capable of handling leachate.
 - d) Some landfill leachate is sent to sewage treatment plants that are incapable of handling it.
 - e) If leachate does not escape from a landfill into the environment, then the landfill's capacity to hold liquids has not been exceeded.
32. From 1973 to 1989 total energy use in this country increased less than 10 percent. However, the use of electrical energy in this country during this same period grew by more than 50 percent, as did the gross national product—the total value of all goods and services produced in the nation. If the statements above are true, then which one of the following must also be true?
- a) Most of the energy used in this country in 1989 was electrical energy.
 - b) From 1973 to 1989 there was a decline in the use of energy other than electrical energy in this country.
 - c) From 1973 to 1989 there was an increase in the proportion of energy use in this country that consisted of electrical energy use.
 - d) In 1989 electrical energy constituted a larger proportion of the energy used to produce the gross national product than did any other form of energy.

- e) In 1973 the electrical energy that was produced constituted a smaller proportion of the gross national product than did all other forms of energy combined.
33. The number of North American children who are obese—that is, who have more body fat than do 85 percent of North American children their age—is steadily increasing, according to four major studies conducted over the past 15 years. If the finding reported above is correct, it can be properly concluded that
- a) when four major studies all produce similar results, those studies must be accurate
 - b) North American children have been progressively less physically active over the past 15 years
 - c) the number of North American children who are not obese increased over the past 15 years
 - d) over the past 15 years, the number of North American children who are underweight has declined
 - e) the incidence of obesity in North American children tends to increase as the children grow older
34. Ditrana is a federation made up of three autonomous regions: Korva, Mitro, and Guadar. Under the federal revenue-sharing plan, each region receives a share of federal revenues equal to the share of the total population of Ditrana residing in that region, as shown by a yearly population survey. Last year, the percentage of federal revenues Korva received for its share decreased somewhat even though the population survey on which the revenue-sharing was based showed that Korva's population had increased. If the statements above are true, which one of the following must also have been shown by the population survey on which last year's revenue-sharing in Ditrana was based?
- a) Of the three regions, Korva had the smallest number of residents.
 - b) The population of Korva grew by a smaller percentage than it did in previous years.
 - c) The populations of Mitro and Guadar each increased by a percentage that exceeded the percentage by which the population of Korva increased.
 - d) Of the three regions, Korva's numerical increase in population was the smallest.
 - e) Korva's population grew by a smaller percentage than did the population of at least one of the other two autonomous regions.
35. Students from outside the province of Markland, who in any given academic year pay twice as much tuition each as do students from Markland, had traditionally accounted for at least two-thirds of the enrollment at Central Markland College. Over the past 10 years academic standards at the college have risen, and the proportion of students who are not Marklanders has dropped to around 40 percent. Which one of the following can be properly inferred from the statements above?
- a) If it had not been for the high tuition paid by students from outside Markland, the college could not have improved its academic standards over the past 10 years.
 - b) If academic standards had not risen over the past 10 years, students who are not Marklanders would still account for at least two-thirds of the college's enrollment.
 - c) Over the past 10 years, the number of students from Markland increased and the number of students from outside Markland decreased.
 - d) Over the past 10 years, academic standards at Central Markland College have risen by more than academic standards at any other college in Markland.

- e) If the college's per capita revenue from tuition has remained the same, tuition fees have increased over the past 10 years.
36. Most antidepressant drugs cause weight gain. While dieting can help reduce the amount of weight gained while taking such antidepressants, some weight gain is unlikely to be preventable. The information above most strongly supports which one of the following?
- a) A physician should not prescribe any antidepressant drug for a patient if that patient is overweight.
 - b) People who are trying to lose weight should not ask their doctors for an antidepressant drug.
 - c) At least some patients taking antidepressant drugs gain weight as a result of taking them.
 - d) The weight gain experienced by patients taking antidepressant drugs should be attributed to lack of dieting.
 - e) All patients taking antidepressant drugs should diet to maintain their weight.