

A person who agrees to serve as mediator between two warring factions at the request of both abandons by so agreeing the right to take sides later. To take sides at a later point would be to suggest that the earlier presumptive impartiality was a sham.

1. The passage above emphasizes which of the following points about mediators?
 - A. They should try to form no opinions of their own about any issue that is related to the dispute.
 - B. They should not agree to serve unless they are committed to maintaining a stance of impartiality.
 - C. They should not agree to serve unless they are equally acceptable to all parties to a dispute.
 - D. They should feel free to take sides in the dispute right from the start, provided that they make their biases publicly known.
 - E. They should reserve the right to abandon their impartiality so as not to be open to the charge of having been deceitful.

In the United States between 1850 and 1880, the number of farmers continued to increase, but at a rate lower than that of the general population.

2. Which of the following statements directly contradicts the information presented above?
 - A. The number of farmers in the general population increased slightly in the 30 years between 1850 and 1880.
 - B. The rate of growth of the United States labor force and the rate of growth of the general population rose simultaneously in the 30 years between 1850 and 1880.
 - C. The proportion of farmers in the United States labor force remained constant in the 30 years between 1850 and 1880.
 - D. The proportion of farmers in the United States labor force decreased from 64 percent in 1850 to 49 percent in 1880.
 - E. The proportion of farmers in the general population increased from 68 percent in 1850 to 72 percent in 1880.

A ten-year comparison between the United States and the Soviet Union in terms of crop yields per acre revealed that when only planted acreage is compared, Soviet yields were equal to 68 percent of United States yields. When total agricultural acreage (planted acreage plus fallow acreage) is compared, however, Soviet yield was 114 percent of United States yield.

3. From the information above, which of the following can be most reliably inferred about United States and Soviet agriculture during the ten-year period?
 - A. A higher percentage of total agricultural acreage was fallow in the United States than in the Soviet Union.
 - B. The United States had more fallow acreage than planted acreage.
 - C. Fewer total acres of available agricultural land were fallow in the Soviet Union than in the United States.
 - D. The Soviet Union had more planted acreage than fallow acreage.
 - E. The Soviet Union produced a greater volume of crops than the United States produced.

At a certain period in Earth's history, its atmosphere contained almost no oxygen, although plants were producing vast quantities of oxygen. As a way of reconciling these two facts, scientists have hypothesized that nearly all of the oxygen being produced was taken up by iron on Earth's surface. Clearly, however, this explanation is inadequate. New studies show that the amount of iron on Earth's surface was not sufficient to absorb anywhere near as much oxygen as was being produced. Therefore, something in addition to the iron on Earth's surface must have absorbed much of the oxygen produced by plant life.

4. In the argument given, the two portions in boldface play which of the following roles?
- A. The first is a claim made by the argument in support of a certain position; the second is that position.
 - B. The first is a judgment made by the argument about a certain explanation; the second is that explanation.
 - C. The first expresses the argument's dismissal of an objection to the position it seeks to establish; the second is that position.
 - D. The first sums up the argument's position with regard to a certain hypothesis; the second provides grounds for that position.
 - E. The first is a concession by the argument that its initial formulation of the position it seeks to establish requires modification; the second presents that position in a modified form.

In the past ten years, there have been several improvements in mountain-climbing equipment. These improvements have made the sport both safer and more enjoyable for experienced climbers. Despite these improvements, however, the rate of mountain-climbing injuries has doubled in the past ten years.

5. Which of the following, if true, best reconciles the apparent discrepancy presented in the passage?
- A. Many climbers, lulled into a false sense of security, use the new equipment to attempt climbing feats of which they are not capable.
 - B. Some mountain-climbing injuries are caused by unforeseeable weather conditions.
 - C. Mountain climbing, although a dangerous sport, does not normally result in injury to the experienced climber.
 - D. In the past ten years there have been improvements in mountain-climbing techniques as well as in mountain-climbing equipment.
 - E. Although the rate of mountain-climbing injuries has increased, the rate of mountain-climbing deaths has not changed.

Sparva, unlike Treland's other provinces, requires automobile insurers to pay for any medical treatment sought by someone who has been involved in an accident; in the other provinces, insurers pay for nonemergency treatment only if they preapprove the treatment. Clearly, Sparva's less restrictive policy must be the explanation for the fact that altogether insurers there pay for far more treatments after accidents than insurers in other provinces, even though Sparva does not have the largest population.

6. Which of the following, if true, most strengthens the argument?

- A. Car insurance costs more in Sparva than in any other province.
- B. The cost of medical care in Sparva is higher than the national average.
- C. Different insurance companies have different standards for determining what constitutes emergency treatment.
- D. Fewer insurance companies operate in Sparva than in any other province.
- E. There are fewer traffic accidents annually in Sparva than in any of the provinces of comparable or greater population.

Observations of the Arctic reveal that the Arctic Ocean is covered by less ice each summer than the previous summer. If this warming trend continues, within 50 years the Arctic Ocean will be ice free during the summer months. This occurrence would in itself have little or no effect on global sea levels, since the melting of ice floating in water does not affect the water level. However, serious consequences to sea levels would eventually result, because _____.

7. Which of the following most logically completes the passage?

- A. large masses of floating sea ice would continue to form in the wintertime
- B. significant changes in Arctic sea temperatures would be accompanied by changes in sea temperatures in more temperate parts of the world
- C. such a warm Arctic Ocean would trigger the melting of massive land-based glaciers in the Arctic
- D. an ice-free Arctic Ocean would support a very different ecosystem than it does presently
- E. in the spring, melting sea ice would cause more icebergs to be created and to drift south into shipping routes

Astronomers found a large body orbiting close to the star Upsilon Andromedae. The standard theory of planet formation holds that no planet that large could be formed so close to a star, leading to the suggestion that the body is a companion star. A subsequent discovery puts that suggestion in doubt: two other large bodies were found orbiting close to Upsilon Andromedae, and the standard theory of companion stars allows for at most one companion star.

8. Which of the following, if true, most helps to resolve the status of the orbiting body without casting doubt on the two standard theories mentioned?
- A. The smaller a planet orbiting a star is, and the farther away it is from the star, the less likely it is to be discovered.
 - B. If a planet's orbit is disturbed, the planet can be drawn by gravity toward the star it is orbiting.
 - C. The largest of the bodies orbiting Upsilon Andromedae is the farthest away from the star, and the smallest is the nearest.
 - D. It is likely that there are many stars, in addition to Upsilon Andromedae and the Sun, that are orbited by more than one smaller body.
 - E. In most cases of companion stars, the smaller companion is much fainter than the larger star.

In Gilavia, the number of reported workplace injuries has declined 16 percent in the last five years. However, perhaps part of the decline results from injuries going unreported: many employers have introduced safety-incentive programs, such as prize drawings for which only employees who have a perfect work-safety record are eligible. Since a workplace injury would disqualify an employee from such programs, some employees might be concealing injury, when it is feasible to do so.

9. Which of the following, if true in Gilavia, most strongly supports the proposed explanation?
- A. In the last five years, there has been no decline in the number of workplace injuries leading to immediate admission to a hospital emergency room.
 - B. Employers generally have to pay financial compensation to employees who suffer work-related injuries.
 - C. Many injuries that happen on the job are injuries that would be impossible to conceal and yet would not be severe enough to require any change to either the employee's work schedule or the employee's job responsibilities.
 - D. A continuing shift in employment patterns has led to a decline in the percentage of the workforce that is employed in the dangerous occupations in which workplace injuries are likely.
 - E. Employers who have instituted safety-incentive programs do not in general have a lower proportion of reported workplace injuries among their employees than do employers without such programs.

In 1998 the United States Department of Transportation received nearly 10,000 consumer complaints about airlines; in 1999 it received over 20,000. Moreover, the number of complaints per 100,000 passengers also more than doubled. In both years the vast majority of complaints concerned flight delays, cancellations, mishandled baggage, and customer service. Clearly, therefore, despite the United States airline industry's serious efforts to improve performance in these areas, passenger dissatisfaction with airline service increased significantly in 1999.

10. Which of the following, if true, most seriously weakens the argument?

- A. Although the percentage of flights that arrived on time dropped slightly overall, from 77 percent in 1998 to 76 percent in 1999, some United States airlines' 1999 on-time rate was actually better than their 1998 on-time rate.
- B. The number of passengers flying on United States airlines was significantly higher in 1999 than in 1998.
- C. Fewer bags per 1,000 passengers flying on United States airlines were lost or delayed in 1999 than in 1998.
- D. The appearance in 1999 of many new Internet sites that relay complaints directly to the Department of Transportation has made filing a complaint about airlines much easier for consumers than ever before.
- E. Although the number of consumer complaints increased for every major United States airline in 1999, for some airlines the extent of the increase was substantial, whereas for others it was extremely small.

The average temperature of the lobster-rich waters off the coast of Foerkland has been increasing for some years. In warmer water, lobsters grow faster. In particular, lobster larvae take less time to reach the size at which they are no longer vulnerable to predation by young cod, the chief threat to their survival. Consequently, the survival rate of lobster larvae must be going up, and the lobster population in Foerkland's coastal waters is bound to increase.

11. Which of the following, if true, most seriously weakens the argument?

- A. There are indications that in recent years the fishing fleet operating off the coast of Foerkland has been taking cod at an unsustainably high rate.
- B. The increase in water temperatures off Foerkland has not been as pronounced as the increase in average soil temperatures in Foerkland.
- C. Because of their speeded-up growth, lobsters now get large enough to be legal catch before they reach reproductive maturity.
- D. Even though lobsters grow faster in warmer waters, warmer waters have no effect on the maximum size to which a lobster can eventually grow.
- E. Cod are a cold-water species, and the increasing water temperatures have caused a northward shift in Foerkland's cod population.

12.

Despite the fact that the health-inspection procedures for catering establishments are more stringent than those for ordinary restaurants, more of the cases of food poisoning reported to the city health department were brought on by banquets served by catering services than were brought on by restaurant meals.

Which of the following, if true, helps explain the apparent paradox in the statement above?

- Ⓐ A significantly larger number of people eat in restaurants than attend catered banquets in any given time period.
- Ⓑ Catering establishments know how many people they expect to serve, and therefore are less likely than restaurants to have, and serve, leftover food, a major source of food poisoning.
- Ⓒ Many restaurants provide catering services for banquets in addition to serving individual meals.
- Ⓓ The number of reported food-poisoning cases at catered banquets is unrelated to whether the meal is served on the caterer's or the client's premises.
- Ⓔ People are unlikely to make a connection between a meal they have eaten and a subsequent illness unless the illness strikes a group who are in communication with one another.

13.

Years ago, consumers in Frieland began paying an energy tax in the form of two Frieland pennies for each unit of energy consumed that came from nonrenewable sources. Following the introduction of this energy tax, there was a steady reduction in the total yearly consumption of energy from nonrenewable sources.

If the statements in the passage are true, then which of the following must on the basis of them be true?

- Ⓐ There was a steady decline in the yearly revenues generated by the energy tax in Frieland.
- Ⓑ There was a steady decline in the total amount of energy consumed each year in Frieland.
- Ⓒ There was a steady increase in the use of renewable energy sources in Frieland.
- Ⓓ The revenues generated by the energy tax were used to promote the use of energy from renewable sources.
- Ⓔ The use of renewable energy sources in Frieland greatly increased relative to the use of nonrenewable energy sources.

14.

That sales can be increased by the presence of sunlight within a store has been shown by the experience of the only Savefast department store with a large skylight. The skylight allows sunlight into half of the store, reducing the need for artificial light. The rest of the store uses only artificial light. Since the store opened two years ago, the departments on the sunlit side have had substantially higher sales than the other departments.

Which of the following, if true, most strengthens the argument?

- Ⓐ On particularly cloudy days, more artificial light is used to illuminate the part of the store under the skylight.
- Ⓑ When the store is open at night, the departments in the part of the store under the skylight have sales that are no higher than those of other departments.
- Ⓒ Many customers purchase items from departments in both parts of the store on a single shopping trip.
- Ⓓ Besides the skylight, there are several significant architectural differences between the two parts of the store.
- Ⓔ The departments in the part of the store under the skylight are the departments that generally have the highest sales in other stores in the Savefast chain.

16.

X-ray examination of a recently discovered painting—judged by some authorities to be a self-portrait by Vincent van Gogh—revealed an underimage of a woman's face. Either van Gogh or another painter covered the first painting with the portrait now seen on the surface of the canvas. Because the face of the woman in the underimage also appears on canvases van Gogh is known to have painted, the surface painting must be an authentic self-portrait by van Gogh.

The conclusion is properly drawn if which of the following is assumed?

- (A) If a canvas already bears a painted image produced by an artist, a second artist who uses the canvas to produce a new painting tends to be influenced by the style of the first artist.
- (B) Many painted canvases that can be reliably attributed to van Gogh contain underimages of subjects that appear on at least one other canvas that van Gogh is known to have painted.
- (C) Any painted canvas incorrectly attributed to van Gogh would not contain an underimage of a subject that appears in authentic paintings by that artist.
- (D) A painted canvas cannot be reliably attributed to an artist unless the authenticity of any underimage that painting might contain can be reliably attributed to the artist.
- (E) A painted canvas cannot be reliably attributed to a particular artist unless a reliable x-ray examination of the painting is performed.

17.

Despite a dramatic increase in the number of people riding bicycles for recreation in Parkville, a recent report by the Parkville Department of Transportation shows that the number of accidents involving bicycles has decreased for the third consecutive year.

Which of the following, if true during the last three years, best reconciles the apparent discrepancy in the facts?

- (A) The Parkville Department of Recreation confiscated abandoned bicycles and sold them at auction to any interested Parkville residents.
- (B) Increased automobile and bus traffic in Parkville had been the leading cause of the most recent increase in automobile accidents.
- (C) Because of the local increase in the number of people bicycling for recreation, many out-of-town bicyclists ride in the Parkville area.
- (D) The Parkville Police Department enforced traffic rules for bicycle riders much more vigorously and began requiring recreational riders to pass a bicycle safety course.
- (E) The Parkville Department of Transportation canceled a program that required all bicycles to be inspected and registered each year.

18.

Mayor: Four years ago, when we reorganized the city police department in order to save money, critics claimed that the reorganization would make the police less responsive to citizens and would thus lead to more crime. The police have compiled theft statistics from the years following the reorganization that show that the critics were wrong. There was an overall decrease in reports of thefts of all kinds, including small thefts.

Which of the following, if true, most seriously challenges the mayor's argument?

- Ⓐ When city police are perceived as unresponsive, victims of theft are less likely to report thefts to the police.
- Ⓑ The mayor's critics generally agree that police statistics concerning crime reports provide the most reliable available data on crime rates.
- Ⓒ In other cities where police departments have been similarly reorganized, the numbers of reported thefts have generally risen following reorganization.
- Ⓓ The mayor's reorganization of the police department failed to save as much money as it was intended to save.
- Ⓔ During the four years immediately preceding the reorganization, reports of all types of theft had been rising steadily in comparison to reports of other crimes.

19.

The painter Peter Brandon never dated his works, and their chronology is only now beginning to take shape in the critical literature. A recent dating of a Brandon self-portrait to 1930 is surely wrong. Brandon was 63 years old in 1930, yet the painting shows a young, dark-haired man—obviously Brandon, but clearly not a man of 63.

Which of the following, if justifiably assumed, allows the conclusion to be properly drawn?

- Ⓐ There is no securely dated self-portrait of Brandon that he painted when he was significantly younger than 63.
- Ⓑ In refraining from dating his works, Brandon intended to steer critical discussion of them away from considerations of chronology.
- Ⓒ Until recently, there was very little critical literature on the works of Brandon.
- Ⓓ Brandon at age 63 would not have portrayed himself in a painting as he had looked when he was a young man.
- Ⓔ Brandon painted several self-portraits that showed him as a man past the age of 60.

20.

Geographers and historians have traditionally held the view that Antarctica was first sighted around 1820, but some sixteenth-century European maps show a body that resembles the polar landmass, even though explorers of the period never saw it. Some scholars, therefore, argue that the continent must have been discovered and mapped by the ancients, whose maps are known to have served as models for the European cartographers.

Which of the following, if true, is most damaging to the inference drawn by the scholars?

- Ⓐ The question of who first sighted Antarctica in modern times is still much debated, and no one has been able to present conclusive evidence.
- Ⓑ Between 3,000 and 9,000 years ago, the world was warmer than it is now, and the polar landmass was presumably smaller.
- Ⓒ There are only a few sixteenth-century global maps that show a continental landmass at the South Pole.
- Ⓓ Most attributions of surprising accomplishments to ancient civilizations or even extraterrestrials are eventually discredited or rejected as preposterous.
- Ⓔ Ancient philosophers believed that there had to be a large landmass at the South Pole to balance the northern continents and make the world symmetrical.