

WEAKENING OF ARGUMENT

Though sucking zinc lozenges has been promoted as treatment for the common cold, research has revealed no consistent effect. Recently, however, a zinc gel applied nasally has been shown to greatly reduce the duration of colds. Since the gel contains zinc in the same form and concentration as the lozenges, the greater the effectiveness of the gel must be due to the fact that cold virus tend to concentrate in the nose, not the mouth.

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

- (A) Experimental subjects who used the zinc gel not only had colds of shorter duration but also had less severe symptoms than did those who used a gel that did not contain zinc.
- (B) The mechanism by which zinc effects the viruses that caused the common cold has not been conclusively established.
- (C) To make them palatable, zinc lozenges generally contains other ingredients, such as citric acid, that can interfere with the chemical activity of zinc.
- (D) No zinc based remedy can have any effect unless it is taken or applied within 48 hours of the onset of cold symptoms.
- (E) Drug company researchers experimenting with nasal spray based on zinc have found that it has much the same effect on colds as the gel does.

Of the countries that were the world's twenty largest exporters in 1953, four had the same share of total world exports in 1984 as in 1953. These countries can therefore serve as models for those countries that wish to keep their share of the global export trade stable over the years.

Which of the following, if true, casts the most serious doubt on the suitability of those four countries as models in the sense described?

- (A) Many countries wish to increase their share of world export trade, not just keep it stable.
- (B) Many countries are less concerned with exports alone than with the balance between exports and imports.
- (C) With respect to the mix of products each exports, the four countries are very different from each other.
- (D) Of the four countries, two had a much larger, and two had a much smaller, share of total world exports in 1970 than in 1984.
- (E) The exports of the four countries range from 15 percent to 75 percent of the total national output.

The difference in average annual income in favour of employees who have college degrees, compared with those who do not have such degrees, doubled between 1980 and 1990. Some analysts have hypothesized that increased competition between employers for employees with college degrees drove up income for such employees.

Which of the following, if true, most seriously undermines the explanation described above?

- A) During the 1980s a growing percentage of college graduates, unable to find jobs requiring a college degree, took unskilled jobs.
- B) The average age of all employees increased slightly during the 1980s.
- C) The unemployment rate changed very little throughout the 1980s.
- D) From 1980 to 1990 the difference in average income between employees with advanced degrees and those with bachelor's degrees also increased.
- E) During the 1980s there were some employees with no college degree who earned incomes comparable to the top incomes earned by employees with a college degree.

To combat human error involved in air traffic control, Miro Jets Inc. has recently installed each of its DC-10 passenger planes with a special anti-collision device. The device alerts the DC-10, via a red light, when another plane is slightly more than three minutes away from a potential collision. Aviation experts at Miro Jet Inc. have determined that three minutes is ample time for a plane to divert its respective flight paths to avoid a collision. Therefore, if the red light on the anti-collision device is off, the DC-10 is more than three minutes flying time from any plane.

Which of the following, if true, most fundamentally calls into question the aviation analyst's argument?

- (A) Recently, a near collision in which both planes were less than 90 seconds flying distance from each other was averted only by the prompt actions of air traffic controllers.
- (B) Some aviation experts warn that in certain cases three minutes may not provide sufficient time for aircrafts to manoeuvre without causing onboard injuries.
- (C) The anti-collision device only signals planes of oncoming directions, not those planes that are flying in parallel.
- (D) When two DC-10's approach each other the red lights on each aircraft do not necessarily turn on simultaneously.
- (E) The DC-10 is not the only aircraft model to have been installed with the anti-collision device.

Typically during thunderstorms most lightning strikes carry a negative electric charge; only a few carry a positive charge. Thunderstorms with unusually high proportions of positive-charge strikes tend to occur in smoky areas near forest fires. The fact that smoke carries positively charged smoke particles into the air above a fire suggests the hypothesis that the extra positive strikes occur because of the presence of such particles in the storm clouds.

Which of the following, if discovered to be true, most seriously undermines the hypothesis?

- (A) Other kinds of rare lightning also occur with unusually high frequency in the vicinity of forest fires.
- (B) The positive-charge strikes that occur near forest fires tend to be no more powerful than positive strikes normally are.
- (C) A positive-charge strike is as likely to start a forest fire as a negative charge strike is.
- (D) Thunderstorms that occur in drifting clouds of smoke have extra positive-charge strikes weeks after the charge of the smoke particles has dissipated.
- (E) The total number of lightning strikes during a thunderstorm is usually within the normal range in the vicinity of a forest fire.

STRENGTHENING OF ARGUMENT

Which of the following most logically completes the passage?

On the whole, scientists do their most creative work before age forty, a tendency that has been taken to show that aging carries with it a loss of creative capacity. An alternative explanation is that by age forty most scientists have worked in their field for fifteen or more years and that by then they have exhausted the opportunity for creative work in that field. Supporting this explanation is the finding that _____.

- (A) the average age of recipients of scientific research grants is significantly greater than forty.
- (B) a disproportionately large number of the scientists who produce highly creative work beyond age forty entered their field at an older age than is common.
- (C) many scientists temper their own expectations of what they can achieve in their research work by their belief that their creativity will decline as they age.
- (D) scientists who are older than forty tend to find more satisfaction in other activities, such as teaching and mentoring, than they do in pursuing their own research.
- (E) there is a similar diminution of creativity with age in non-scientific fields, such as poetry and musical composition.

Chinese restaurants that offer free jasmine tea with meals do better business than similar Chinese restaurants that do not offer it for free. But since restaurants offering this free-tea are more likely to offer food that doesn't contain MSG, a substance that is blamed for causing severe headaches in some people after consuming Chinese food, it is the repeat business of MSG allergic patrons that is responsible for higher business and not the attraction of free-tea.

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

- A. Although MSG is a taste enhancer, some people cannot make out the difference between the food prepared with and without it.
- B. No study has been able to prove a conclusive relation between MSG and the associated headaches with consuming Chinese food.
- C. A large majority of the customers of the Chinese restaurants offering free jasmine tea don't end up requesting jasmine tea.
- D. Most restaurants that do not offer free jasmine tea end up not charging less than the usual price for the same when ordered by patrons.
- E. Some customers at Chinese restaurants which do not offer free jasmine tea complain of severe headaches right after having a meal at those restaurants

One variety of partially biodegradable plastic beverage container is manufactured from small bits of plastic bound together by a degradable bonding agent such as corn-starch. Since only the bonding agent degrades, leaving the small bits of plastic, no less plastic refuse per container is produced when such containers are discarded than when comparable nonbiodegradable containers are discarded.

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

- (A) Both partially biodegradable and nonbiodegradable plastic beverage containers can be crushed completely flat by refuse compactors.
- (B) The partially biodegradable plastic beverage containers are made with more plastic than comparable nonbiodegradable ones in order to compensate for the weakening effect of the bonding agents.
- (C) Many consumers are ecology-minded and prefer to buy a product sold in the partially biodegradable plastic beverage containers rather than in nonbiodegradable containers, even if the price is higher.
- (D) The manufacturing process for the partially biodegradable plastic beverage containers results in less plastic waste than the manufacturing process for nonbiodegradable plastic beverage containers.
- (E) Technological problems with recycling currently prevent the reuse as food or beverage containers of the plastic from either type of plastic beverage container.

A recently published article on human physiology claims that Enzyme K contributes to improved performance in strenuous activities such as weightlifting and sprinting. The Article cites evidence of above-average levels of enzyme K in Olympic weight lifters and sprinters.

Which of the following, if true, would most strengthen the article's conclusion?

- A. Enzyme K levels are the most important factor affecting the performance of strenuous activities.
- B. Enzyme K has no other function in the human body
- C. Enzyme K is required for the performance of strenuous activities.
- D. Enzyme K helps weight lifters more than it helps sprinters.
- E. Strenuous activities do not cause the human body to produce unusually high levels of enzyme K

Officials of the Youth Hockey League and parents of players in the league have become concerned with the number of flagrant fouls occurring during league games. This past season, the number of flagrant fouls was double the number from the season before. League officials plan to reduce the number of such fouls during the coming season by implementing mandatory suspensions for players who commit flagrant fouls.

Which of the following statements, if true, provides the best evidence that the officials' plan will be effective?

- (A) Most serious injuries occurring during league games are a direct result of flagrant fouls.
- (B) League referees have been trained to recognize flagrant fouls and to report incidents involving such fouls.
- (C) Parents of players in the league are in support of mandatory suspensions for flagrant fouls.
- (D) A similar league suspends players for committing flagrant fouls; this league has a relatively low incidence of flagrant fouls when compared with the Youth Hockey League.
- (E) Most players in the league strive to be selected for the All-Star team, and league rules state that no player with a record of suspension shall be selected for the All-Star team.