Arguments

1. A researcher concluded her report on a study testing a new antihypertension drug by saying, “Patients who used the new drug have experienced no significant side effects.” The editor of the medical journal to which she submitted the report suggested that she change the conclusion to “Patients who used the new drug appear thus far to have experienced no significant side effects.”

Which of the following, if true, provides the best logical justification for the editor’s suggestion that the researcher’s conclusion be altered?

- Some patients who took the new antihypertension drug experienced a mild increase in nausea, a side effect easily averted by taking the medication with food.
- The new antihypertension drug could have caused side effects, the visible signs of which have not yet appeared in the patients who participated in the study.
- The researcher’s report does not sufficiently compare the effects of the antihypertension drug with those of other, established antihypertension drugs.
- The majority of Americans have blood pressure far enough outside the normal range to be considered at least mildly hypertensive.
- The severity of side effects from antihypertension drugs varies from patient to patient.
2. The World Bank has developed a computer program that assesses the authenticity of world currency suspected of being counterfeit. The program contains extensive profiles of the printing techniques and components of currencies of all major nations; such profiles include chemical composition of paper, density of ink, and details in the printing plates that are invisible to the naked eye. Counterfeiters, including the best counterfeiters known from history, cannot hope to reproduce all facets of a particular nation’s currency.

Which of the following can be logically concluded from the passage above?

○ The staff resources required to prepare currency for analysis by the program make use of the program prohibitively expensive.

○ Consumer banks will soon purchase the right to use the program on their own computers.

○ The program cannot fail to identify as inauthentic counterfeit currency that has previously escaped detection.

○ The authentication program has taken a number of years to develop.

○ In numerous cases, authentic currency is not recognized as authentic by the program.
3. **Director of Foreign Language School:** We should stop giving our students the *La Langue Facile* tape series and begin to distribute the *Les Bons Mots* series instead.

**Assistant Director:** Why?

**Director:** Because it takes 31 percent more time for teachers to prepare lessons using the *La Langue Facile* tape series than it takes for teachers to prepare lessons using the *Les Bons Mots* tape series. This time would be better spent working directly with students.

**Assistant Director:** That is not a sufficient reason to change instructional tapes. We can simply hire teachers who already have planned lessons based on the *La Langue Facile* tape series.

Which of the following, if true, most seriously undermines the assistant director’s objection to the argument made by the director?

- All teachers in the school district are currently required to attend classes to learn how to adapt the *La Langue Facile* tapes to new educational standards.
- Once teachers have made lesson plans, they are more willing to move from their current positions to positions with new language schools.
- Teachers with established lesson plans hired by foreign language schools are required to put in additional hours in administrative support, hours equal to the time they would have spent in making lesson plans.
- The average improvement in scores on tests of fluency in the director’s school is below the average improvement in standardized test scores in otherwise comparable schools.
The supplemental course materials required for use with the *Les Bons Mots* tape series require teachers to invest a great deal of time in logistical arrangements, such as arranging for videocassette recorders and photocopying quizzes.

4. An automobile manufacturer’s engineering department developed a new model of its best-selling sedan that lacked certain safety features present in the earlier model, which was still being produced. During the first year of production of the new model, while both models were being sold, the newer model of the sedan sold much better than the older model. The CEO of the automobile company concluded that safety features were not important in consumers’ decisions to purchase the sedan.

Which of the following, if true, would most seriously weaken the CEO’s conclusion?

- The automobile company sells cars both for inclusion in corporate fleets and for individual use.
- Many customers consider the new sedan safe because of certain features in its steering mechanism and body style.
- Many of those who purchased the new sedan also own another car manufactured by the same automobile company.
- The new sedan has sold to more customers in the 18-to-25 age bracket.
- There was no significant difference in price between the newer sedan and the older model.
5. A new company can offer stocks in an initial public offering (IPO) before the company has proven itself capable of generating long-term profits for its stockholders. Historically, if a company has seemed likely to generate profits, the stock price in the IPO has risen; if the company seemed less likely to generate profits, the stock price in the IPO has fallen. Today business analysts announced that the Tenon Corporation has turned a profit in the financial quarter just completed. Therefore, stock prices for the Tenon Corporation’s IPO, which is planned for next week, will rise.

The author’s conclusion about Tenon Corporation is based on faulty reasoning because it

☐ depends on the assumption that what has been true in the past will hold true in the future
☐ relies on a line of reasoning that is circular
☐ confuses cause with effect
☐ overlooks cases in which the counterexample is true
☐ rests on a faulty comparison
6. A company that disposes of industrial waste employs dozens of people in jobs that are considered quite hazardous. The company obeys federal regulations governing workplace safety, and to comply with new regulations instituted to avoid recently discovered risks from airborne particulate matter, company engineers were required to install extremely expensive air-filtering equipment. However, despite the expense of the air-filtering equipment, the company’s operating costs for the quarter were considerably lower than normal.

Which of the following, if true, most helps to resolve the apparent paradox?

- More than half the company’s expenditures to maintain worker safety go to pay for protective garments, yet only a small percentage of such expenditures go to pay for nose and mouth filters.
- Expensive shutdowns to prevent contamination that were periodically required prior to the installation of the air-filtering equipment are no longer necessary.
- The company’s costs of labor, which make up a large fraction of operating costs, increased during the same period.
- When the air-filtering equipment was installed in the waste disposal facility, the company took the opportunity to upgrade the temperature control equipment.
- The majority of the company’s employees work in the areas of the plant in which the air-filtering equipment was installed.
7. The diamond mines of Extopia produced so many diamonds that the market was overwhelmed; consumption did not keep pace with production. As a result, diamond prices fell. The government of Extopia attempted to support diamond prices through a subsidy scheme: Diamond producers who voluntarily limited the number of diamonds they produced were compensated directly by the government up to a specified maximum payment.

The program instituted by the government of Extopia, if successful, will not result in a net cost increase to the government. Which of the following, if true, is the best basis for an explanation of how this could be true?

- Depressed diamond prices meant operating losses for diamond producers, decreasing the income of diamond producers, and thus decreasing the taxes paid to the government by diamond producers.
- Diamond production in countries other than Extopia declined in the same year Extopia’s government instituted the compensatory scheme.
- In the first quarter after Extopia’s government instituted the compensatory scheme, diamond production declined 8 percent.
- Because the government specified a maximum subsidy payment per diamond producer, those producers with numerous mines in operation received less support per mine than those producers with fewer mines in operation.
- Diamond producers desiring to qualify for the compensatory scheme could not continue to produce diamonds and simply withhold them from the market.
8. Pharmaceutical companies typically charge slightly inflated prices for drugs that have a large customer base and are heavily prescribed by doctors, in order to balance the losses such companies experience from producing “orphan” drugs—drugs that are used by so few patients that they can never be profitable. New federal regulations require pharmaceutical companies to limit the price they charge for any drug to cost plus a predetermined percentage profit.

If the statements above are true, which of the following must also be true?

⊙ New pharmaceutical technology has made advances possible; the drugs produced by such technology, however, are too expensive for all but the wealthiest patients.

⊙ If pharmaceutical companies do not find another source of income to balance the losses they experience in producing orphan drugs, such companies will no longer be able to produce those drugs without compromising overall profits.

⊙ Some patients already request generic pharmaceuticals, when they are available, because they are typically less expensive than name-brand pharmaceuticals.

⊙ If pharmaceutical companies reduce the costs of producing most drugs, they will be able to earn more profits despite the new law, and thus will be able to balance the losses they experience from the production of orphan drugs.

⊙ Even though charitable organizations that fund research into the rare diseases treated by orphan drugs provide some donations to offset the costs of the drugs, such donations are declining.
9. Gas leaks are a danger for households in which certain standards of safety are not maintained. So that householders are able to detect such hazards before they become serious enough to pose a danger, the county fire safety board has mailed a newsletter to all residents of the county, listing ways to detect a gas leak and encouraging householders to check for such signs.

Which of the following, if true, is the best criticism of the newsletter as a means of achieving the fire safety board’s goals?

☐ Many gas leaks have certain warning signs that cannot be detected during an investigation by a householder.

☐ Once a gas leak is known to exist, the steps taken to eliminate such a hazard vary according to the type and location of the leak.

☐ The newsletter was sent to all residents of the county, including those who maintain the standards of safety that preclude the possibility of a gas leak.

☐ Gas leaks are more common in single-family homes than they are in apartments.

☐ People who do not maintain minimal standards of safety are unlikely to inspect their homes for the signs of gas leaks.
10. Women make up a larger proportion of workers in the information services industry than they did 10 years ago. In 1985, only 7 percent of women in the workforce were employed in the information services industry, but in 1995, more than 16 percent of women in the workforce were employed in the information services industry.

To evaluate the truth of the argument above, it would be most useful to compare 1985 and 1995 with regard to which of the following characteristics?

- The percentage of women in the workforce who were not employed in the information services industry
- The percentage of women who are now retired, and who have formerly worked in the information services industry
- The percentage of women who have been promoted to managerial positions within the information services industry
- The percentage of men in the workforce who were employed in the information services industry
- The percentage of men who will soon be eligible for employment in the information services industry