

INFERENCE QUESTIONS IN CR

1. 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.
2. 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.
3. 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.
4. 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.

5. 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:**
- when four major studies all produce similar results, those studies must be accurate
 - North American children have been progressively less physically active over the past 15 years
 - the number of North American children who are not obese increased over the past 15 years
 - over the past 15 years, the number of North American children who are underweight has declined
 - the incidence of obesity in North American children tends to increase as the children grow older
6. 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?**
- Most of the energy used in this country in 1989 was electrical energy.
 - From 1973 to 1989 there was a decline in the use of energy other than electrical energy in this country.
 - From 1973 to 1989 there was an increase in the proportion of energy use in this country that consisted of electrical energy use.
 - 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.
 - 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.
7. 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?**
- Of the three regions, Korva had the smallest number of residents.
 - The population of Korva grew by a smaller percentage than it did in previous years.
 - The populations of Mitro and Guadar each increased by a percentage that exceeded the percentage by which the population of Korva increased.
 - Of the three regions, Korva's numerical increase in population was the smallest.
 - Korva's population grew by a smaller percentage than did the population of at least one of the other two autonomous regions.
8. 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?**
- 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.
 - 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.
 - Over the past 10 years, the number of students from Markland increased and the number of students from outside Markland decreased.
 - Over the past 10 years, academic standards at Central Markland College have risen by more than academic standards at any other college in Markland.
 - If the college's per capita revenue from tuition has remained the same, tuition fees have increased over the past 10 years.
9. Shipping Clerk: The five specially ordered shipments sent out last week were sent out on Thursday. Last week, all of the shipments that were sent out on Friday consisted entirely of building supplies, and the shipping department then closed for the weekend. Four shipments were sent to Truax Construction last week, only three of which consisted of building supplies. **If the shipping clerk's statements are true, which of the following must also be true?**
- At least one of the shipments sent to Truax Construction last week was specially ordered.
 - At least one of last week's specially ordered shipments did not consist of building supplies.
 - At least one of the shipments sent to Truax Construction was not sent out on Thursday of last week.
 - At least one of the shipments that were sent out on Friday of last week was sent to Truax Construction.
 - At least one of the shipments sent to Truax Construction last week was sent out before Friday.

10. 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.
11. **Finding of a survey of Systems magazine subscribers:** Thirty percent of all merchandise orders placed by subscribers in response to advertisements in the magazine last year were placed by subscribers under age thirty-five.
- Finding of a survey of advertisers in Systems magazine:** Most of the merchandise orders placed in response to advertisements in Systems last year were placed by people under age thirty-five.
- For both of the findings to be accurate, which of the following must be true?**
- a) More subscribers to Systems who have never ordered merchandise in response to advertisements in the magazine are age thirty-five or over than are under age thirty-five.
 - b) Among subscribers to Systems, the proportion who are under age thirty-five was considerably lower last year than it is now.
 - c) Most merchandise orders placed in response to advertisements in Systems last year were placed by Systems subscribers over age thirty-five.
 - d) Last year, the average dollar amount of merchandise orders placed was less for subscribers under age thirty-five than for those age thirty-five or over.
 - e) Last year many people who placed orders for merchandise in response to advertisements in Systems were not subscribers to the magazine.
12. Parasitic wasps lay their eggs directly into the eggs of various host insects in exactly the right numbers for any suitable size of host egg. If they laid too many eggs in a host egg, the developing wasp larvae would compete with each other to the death for nutrients and space. If too few eggs were laid, portions of the host egg would decay, killing the wasp larvae. **Which of the following conclusions can properly be drawn from the information above?**
- a) The size of the smallest host egg that a wasp could theoretically parasitize can be determined from the wasp's egg-laying behavior.
 - b) Host insects lack any effective defenses against the form of predation practiced by parasitic wasps.
 - c) Parasitic wasps learn from experience how many eggs to lay into the eggs of different host species.
 - d) Failure to lay enough eggs would lead to the death of the developing wasp larvae more quickly than would laying too many eggs.
 - e) Parasitic wasps use visual clues to calculate the size of a host egg.

13. Federal efforts to aid minority businesses began in the 1960's when the Small Business Administration (SBA) began making federally guaranteed loans and government-sponsored management and technical assistance available to minority business enterprises. While this program enabled many minority entrepreneurs to form new businesses, the results were disappointing, since managerial inexperience, unfavorable locations, and capital shortages led to high failure rates. Even 15 years after the program was implemented, minority business receipts were not quite two percent of the national economy's total receipts. **Which of the following statements about the SBA program can be inferred from the passage?**
- a) The maximum term for loans made to recipient businesses was 15 years.
 - b) Business loans were considered to be more useful to recipient businesses than was management and technical assistance.
 - c) The anticipated failure rate for recipient businesses was significantly lower than the rate that actually resulted.
 - d) Recipient businesses were encouraged to relocate to areas more favorable for business development.
 - e) The capitalization needs of recipient businesses were assessed and then provided for adequately.