

Weaken Questions

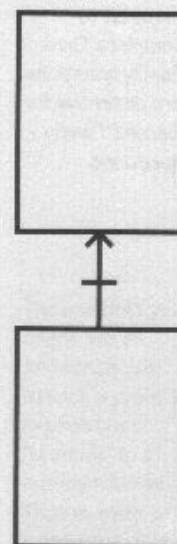
Weaken questions require you to select the answer choice that undermines the author's argument as decisively as possible. Overall, Weaken questions are the most frequently appearing Critical Reasoning question type on the GMAT.

Because Weaken questions are in the Third Family, these questions require a different approach than the Must Be True and Main Point questions we have covered so far. In addition to the Primary Objectives, keep the following rules in mind when approaching Weaken questions:

1. The stimulus will contain an argument. Because you are asked to weaken the author's reasoning, and reasoning requires a conclusion, an argument will always be present. In order to maximize your chances of success you must identify, isolate, and assess the premises and the conclusion of the argument. Only by understanding the structure of the argument can you gain the perspective necessary to attack the author's position.
2. Focus on the conclusion. Almost all correct Weaken answer choices impact the conclusion. The more you know about the specifics of the conclusion, the better armed you will be to differentiate between correct and incorrect answers.
3. The information in the stimulus is suspect. There are often reasoning errors present, and you must read the argument very carefully.
4. Weaken questions often yield strong prephrases. Be sure to actively consider the range of possible answers before proceeding to the answer choices.
5. The answer choices are accepted as given, even if they include "new" information. Unlike Must Be True questions, Weaken answer choices can bring into consideration information outside of or tangential to the stimulus. Just because a fact or idea is not mentioned in the stimulus is *not* grounds for dismissing an answer choice. Your task is to determine which answer choice best attacks the argument in the stimulus.

By following the Primary Objectives and focusing on the points above, you will maximize your chances of success on Weaken questions.

Third Family
Information
Model:



Remember, most Weaken question stems tell you to accept the answer choices as true.

Weaken question stems typically contain the following two features:

1. The stem uses the word "weaken" or a synonym. Following are some examples of words or phrases used to indicate that your task is to weaken the argument:

We discuss the Third Family before the Second Family because some of the skills required to complete Third Family questions are essential for Second Family questions.

weaken
attack
undermine
refute
argue against
call into question
cast doubt
challenge
damage
counter

2. The stem indicates that you should accept the answer choices as true, usually with the following phrase:

"Which of the following, if true, ..."

Here are several Weaken question stem examples:

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

"Which of the following, if true, casts the most doubt on the conclusion drawn above?"

"Which of the following, if true, most calls into question the claim above?"

"Which of the following, if true, is most damaging to the conclusion above?"

"Which of the following, if known, is evidence that contradicts the hypothesis above?"

"Which of the following, if discovered, would be evidence against the speculation above?"

How to Weaken an Argument

The key to weakening an GMAT argument is to attack the conclusion. But, keep in mind that to attack is not the same as to destroy. Although an answer that destroys the conclusion would be correct, this rarely occurs because of the minimal space allotted to answer choices. Instead, you are more likely to encounter an answer that hurts the argument but does not ultimately destroy the author's position. When evaluating an answer, ask yourself, "Would this answer choice make the author reconsider his or her position or force the author to respond?" If so, you have the correct answer.

You do not need to find an answer that destroys the author's position. Instead, simply find an answer that hurts the argument.

Because arguments are made up of premises and conclusions, you can safely assume that these are the parts you must attack in order to weaken an argument. Let us discuss each part, and the likelihood that each would be attacked by an answer choice.

1. The Premises

One of the classic ways to attack an argument is to attack the premises on which the conclusion rests. Regrettably, this form of attack is rarely used on the GMAT because when a premise is attacked, the answer choice is easy to spot. Literally, the answer will contradict one of the premises, and most students are capable of reading an argument and then identifying an answer that simply negates a premise.

In practice, almost all correct GMAT Weaken question answers leave the premises untouched.

The one time you might see an answer choice attack a premise is when that "premise" is a sub-conclusion. That is, when a conclusion of one premise is used as a premise to support another conclusion.

2. The Conclusion

The conclusion is the part of the argument that is most likely to be attacked, but the correct answer choice will not simply contradict the conclusion. Instead, the correct answer will undermine the conclusion by showing that the conclusion fails to account for some element or possibility. In this sense, the correct answer often shows that the conclusion does not necessarily follow from the premises even if the premises are true. Consider the following example:

All my neighbors own blue cars. Therefore I own a blue car.

Even though the statement that the neighbors have blue cars is entirely reasonable, the weakness in the argument is that this fact has no impact on the color of the car I own. In this overly simplified problem, the correct weakening answer would be something along the lines of, "The cars of one's neighbors have no determinative effect on the car any individual owns." Would that conclusively

Assumptions will be discussed in more detail in Chapter Eight.

disprove that I own a blue car? No. Does it show that perhaps I do not own a blue car? Yes. Does it disprove that my neighbors own blue cars? No.

Answers that weaken the argument's conclusion will attack assumptions made by the author. In the example above, the author assumes that the neighbors' ownership of blue cars has an impact on the color of the car that he owns. If this assumption were shown to be questionable, the argument would be undermined.

The stimuli for weaken questions contain errors of assumption. This makes sense, because the easiest argument to weaken is one that already has a flaw. Typically, the author will fail to consider other possibilities or leave out a key piece of information. In this sense the author assumes that these elements do not exist when he or she makes the conclusion, and if you see a gap or hole in the argument immediately consider that the correct answer might attack this hole.

As you consider possible answers, always look for the one that attacks the way the author arrived at the conclusion. Do not worry about the premises and instead focus on the effect the answer has on the conclusion.

Personalizing helps you see the argument from a very involved perspective, and that helps you assess the strength of each answer.

So, we know that we must first focus on the conclusion and how the author arrived at the conclusion. The second key to weakening arguments is to personalize the argument. Most students perform considerably better when they see the argument from their perspective as opposed to trying to understand the issues abstractly. When analyzing the author's argument, imagine how you would respond if you were talking directly to the author. Would you use answer choice (A) or would you prefer answer choice (B)? Students who personalize the argument often properly dismiss answer choices that they would have otherwise wasted time considering.

Common Weakening Scenarios

Although there are many classical logical fallacies, the most common of which we will discuss in the Flaw in the Reasoning section, several scenarios that occur in GMAT Weaken question stimuli are easy to recognize and attack:

1. **Incomplete Information.** The author fails to consider all of the possibilities, or relies upon evidence that is incomplete. This flaw can be attacked by bringing up new possibilities or information.
2. **Improper Comparison.** The author attempts to compare two or more items that are essentially different.

3. **Qualified Conclusion.** The author qualifies or limits the conclusion in such a way as to leave the argument open to attack.

While these three scenarios are not the only ways an argument can be weak, they encompass a large proportion of the errors that appear in GMAT stimuli.

Three Incorrect Answer Traps

There are certain incorrect answer choices that appear frequently in Weaken questions:

1. **Opposite Answers.** As discussed in the Must Be True question chapter, these answers do the exact opposite of what is needed. In this case, they strengthen the argument as opposed to weakening it. Although you might think answers of this type are easy to avoid, they can be very tricky. To analogize, have you ever gotten on a freeway thinking you were going south when in fact you later discovered you were going north? It is easy to make a mistake when you head in the exact opposite direction. In the same way, Opposite answers lure the test taker by presenting information that relates perfectly to the argument, but just in the wrong manner.
2. **Shell Game Answers.** Like Opposite answers, the Shell Game is the same as in the Must Be True discussion. Remember, a Shell Game occurs when an idea or concept is raised in the stimulus and then a very similar idea appears in the answer choice, but the idea is changed just enough to be incorrect but still attractive. In Weaken questions, the Shell Game is usually used to attack a conclusion that is similar to, but slightly different from, the one presented in the stimulus. Later in this chapter you will see some excellent examples of this answer type.
3. **Out of Scope Answers.** These answers simply miss the point of the argument and raise issues that are either not related to the argument or tangential to the argument.

While these three answer types are not the only ways an answer choice can be attractively incorrect, they appear frequently enough that you should be familiar with each form.

Some of the wrong answer types from the Must Be True chapter do not apply to Weaken questions. For example, the New Information answer is usually wrong in a Must Be True question, but not in a Weaken question because new information is acceptable in the answer choices.

Weaken Questions Analyzed

In the following questions we will discuss the form of the stimulus and answer choices against the background of our discussion so far. Please take a moment to complete the following problem:

1. Carl is clearly an incompetent detective. He has solved a smaller percentage of the cases assigned to him in the last 3 years—only 1 out of 25—than any other detective on the police force.

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

- (A) Because the police chief regards Carl as the most capable detective, she assigns him only the most difficult cases, ones that others have failed to solve.
- (B) Before he became a detective, Carl was a neighborhood police officer and was highly respected by the residents of the neighborhood he patrolled.
- (C) Detectives on the police force on which Carl serves are provided with extensive resources, including the use of a large computer database, to help them solve crimes.
- (D) Carl was previously a detective in a police department in another city, and in the 4 years he spent there, he solved only 1 out of 30 crimes.
- (E) Many of the officers in the police department in which Carl serves were hired or promoted within the last 5 years.

This would be classified as an easy question, but as a starting point for our discussion that is helpful. The structure of the argument is simple, and it is easy to see why the premise does not undeniably prove the conclusion. The answers contain several predictable forms, and this is the type of question you should quickly destroy. You do not need to spend a great deal of time trying to find a specific prephrased answer because there are so many possibilities, and the answers can be eliminated without a great deal of time spent considering which are Losers and which are Contenders.

The stimulus uses a premise about success rate to form a conclusion about Carl's competency as a detective. Ask yourself—does the premise prove the conclusion? No, because there are many factors that could have affected Carl's performance. In this sense, the stimulus has incomplete information, and we should try to discover a relevant piece of information in one of the answer choices that will shed more light on why Carl's success rate is so low. Use this knowledge to make a general prephrase that indicates you are looking for a piece of information that shows Carl's success rate is not as low as it seems or that other factors limited Carl's performance.

Answer choice (A): This is the correct answer. We discover that Carl receives the hardest cases, and one would expect that the hardest cases would yield a lower success rate. Notice that this answer does not attack the premises. Even though they are still true, the conclusion is undermined by the new evidence. This is typical of most Weaken question answers—the premises are not addressed and the focus is on the conclusion.

Answer choice (B): This answer is irrelevant. It tries to use the opinion of others about Carl's performance in one capacity to refute facts about his performance in another capacity. Personalize the answer—is this the answer you would offer to weaken the argument against Carl if he were your friend?

Answer choice (C): This is an Opposite answer that strengthens the claim that Carl is incompetent by showing that Carl was not deprived of certain resources for solving cases.

Answer choice (D): This is another Opposite answer that strengthens the claim that Carl is incompetent. This time, the answer shows that Carl has a previous record of poor performance.

Answer choice (E): This answer goes beyond the scope of the argument by discussing the promotions of other officers. These promotions do not impact Carl's job and no information is given about Carl's promotions. If you are thinking that perhaps Carl's poor performance is a result of dissatisfaction over the promotions of others, then you are assuming too much.

Prephrasing is often easier with Weaken questions than with some other question types. Simply put, many people are good at attacking a position and prephrasing puts that skill to use.

Now we will move to a somewhat harder question. Please take a moment to complete the following problem:

2. Beverage company representative: The plastic rings that hold six-packs of beverage cans together pose a threat to wild animals, which often become entangled in the discarded rings and suffocate as a result. Following our lead, all beverage companies will soon use only those rings consisting of a new plastic that disintegrates after only three days' exposure to sunlight. Once we all complete the switchover from the old to the new plastic rings, therefore, the threat of suffocation that plastic rings pose to wild animals will be eliminated.

Which one of the following, if true, most seriously weakens the representative's argument?

- (A) The switchover to the new plastic rings will take at least two more years to complete.
- (B) After the beverage companies have switched over to the new plastic rings, a substantial number of the old plastic rings will persist in most aquatic and woodland environments.
- (C) The new plastic rings are slightly less expensive than the old rings.
- (D) The new plastic rings rarely disintegrate during shipping of beverage six-packs because most trucks that transport canned beverages protect their cargo from sunlight.
- (E) The new plastic rings disintegrate into substances that are harmful to aquatic animals when ingested in substantial quantities by them.

In two-speaker stimuli where you are asked to weaken the argument of one of the speakers, the test makers often use misdirection and place an answer choice that weakens the argument of the other speaker.

The conclusion of this argument is the final sentence, which contains the conclusion indicator "therefore," and the conclusion contains a qualification that the threat of suffocation will be eliminated *after* the switchover is complete. The premises supporting this conclusion are that the new plastic rings will be used by all companies and that the rings disintegrate after three days' exposure to sunlight. Personalize this argument and ask yourself—are there any holes in this argument? Yes, there are several. The most obvious is, "What if an animal becomes entangled in the new rings before they can disintegrate?" In this question, however, that avenue of attack is not used (this was a two-question stimulus and that idea was used in the other question) but there is no way to know this prior to attempting the question.

Answer choice (A): This answer does not hurt the argument because the author qualified the conclusion to account for the date of the switchover, thereby inoculating against this avenue of attack. From a personalizing standpoint,

Imagine what would happen if you raised this issue to the beverage company representative—he or she would simply say, “Yes, that may be the case, but I noted in my conclusion that the program would be effective *once the switchover is complete*.” This is an attractive answer because it raises a point that would be a difficult public relations issue to address. Regardless, this does not hurt the argument given by the beverage company representative, and that is the task at hand.

Answer choice (B): This is the correct answer. Most people select answer choice (E), but as you will see, (E) is incorrect. This answer undermines the representative’s conclusion by showing that even after the switchover is complete, the threat to animals from plastic rings will persist. Note the carefully worded nature of the conclusion—the representative does not say the threat from new plastic rings will be eliminated, but rather the threat from plastic rings, which includes both old and new rings.

Answer choice (C): This out-of-scope answer addresses an issue that is irrelevant to the representative’s argument.

Answer choice (D): While this is nice information from a customer service standpoint (you do not want your six-pack of beer falling apart as you walk out of the store), this answer does not affect the conclusion because it does not address the threat of suffocation to animals.

Answer choice (E): This is the most commonly chosen answer, and it is a perfect example of a Shell Game. In this case, the answer preys upon test takers who fail to heed Primary Objective #4: “Read closely and know precisely what the author said. Do not generalize!” Many test takers read the conclusion and think, “So when they start using these new rings, it will make things better for the animals.” When these test takers get to answer choice (E), the answer looks extremely attractive because it indicates that the implementation of the new rings will also have a harmful effect. With this thinking in mind, many test takers select answer choice (E) thinking it undermines the conclusion and they are certain they have nailed the question. However, the conclusion is specifically about suffocation, and answer choice (E) does not address suffocation. Instead, answer choice (E) is a shell game that attacks a conclusion that is similar to but different from the actual conclusion. Remember, one of the rules for weakening arguments is to focus on the conclusion, and knowing the details of the conclusion is part of that focus.

Finally, the placement of answer choice (E) is no accident. Most students do not immediately identify answer choice (B) as the correct answer, and even those that keep it as a Contender often feel it could be stronger. Then, just when things are starting to look bleak, answer choice (E) pops up sounding fairly reasonable. Most people breathe a sigh of relief and select the answer without carefully examining the contents. Never choose answer choice (E) just because the first four answers are not overly attractive! Always make a thorough

Answer choice (E) is a great place for the test makers to place an attractive wrong answer because (E) is the last answer that a student will read, and the contents of (E) “reverberate” in the test taker’s mind and begin to sound reasonable.

In that same vein, answer choice (A) is a great place to put the correct answer if the stimulus is exceedingly difficult to understand or if the question stem is extremely unusual. Why? Because most test takers use the first answer choice in a difficult problem to get a handle on what they are reading and the type of answers they will see. If a problem is tough, it can be difficult to immediately identify answer choice (A) as correct. Then, by the time they have read all five answers, they are prone to have forgotten the details of the first answer choice.

analysis of every answer choice and remember that the test makers know that people get nervous if none of the first four answer choices jump out at them. Do not let the test makers draw you into a trap!

Final Note

We will continue our discussion of Weaken questions in the next chapter, which addresses Cause and Effect Reasoning. We will also continue to discuss argumentation in more detail as we progress through the Second Family of questions and into Method of Reasoning and Parallel Reasoning.

The following page is a review of key points from this chapter. After the review, there is a short problem set to help test your knowledge of these ideas. The problem set is followed by an answer key with explanations. Good luck!

Weaken Question Type Review

Weaken questions require you to select an answer choice that undermines the author's argument as decisively as possible. Keep these fundamental rules in mind when you approach Weaken questions:

1. The stimulus will contain an argument.
2. Focus on the conclusion.
3. The information in the stimulus is suspect. There are often reasoning errors present, and you must read the argument very carefully.
4. Weaken questions often yield strong prephrases.
5. The answer choices are accepted as given, even if they include "new" information.

The conclusion is the part of the argument that is most likely to be attacked, but the correct answer choice will not simply contradict the conclusion. Instead, the correct answer will undermine the conclusion by showing that the conclusion fails to account for some element or possibility. In this sense, the correct answer often shows that the conclusion does not necessarily follow from the premises even if the premises are true.

Several scenarios that can occur in GMAT Weaken question stimuli are easy to recognize and attack:

1. Incomplete Information.
2. Improper Comparison.
3. Qualified Conclusion.

There are certain incorrect answer choices that appear frequently in Weaken questions:

1. Opposite Answers.
2. Shell Game Answers.
3. Out of Scope Answers.

Weaken Question Problem Set

Please complete the problem set and review the answer key and explanations. *Answers on Page 125*

1. Human beings have cognitive faculties that are superior to those of other animals, and once humans become aware of these, they cannot be made happy by anything that does not involve gratification of these faculties.

Which one of the following statements, if true, most calls into question the view above?

- (A) Certain animals—dolphins and chimpanzees, for example—appear to be capable of rational communication.
- (B) Many people familiar both with intellectual stimulation and with physical pleasures enjoy the latter more.
- (C) Someone who never experienced classical music as a child will usually prefer popular music as an adult.
- (D) Many people who are serious athletes consider themselves to be happy.
- (E) Many people who are serious athletes love gourmet food.

2. Loggerhead turtles live and breed in distinct groups, of which some are in the Pacific Ocean and some are in the Atlantic. New evidence suggests that juvenile Pacific loggerheads that feed near the Baja peninsula hatch in Japanese waters 10,000 kilometers away. Ninety-five percent of the DNA samples taken from the Baja turtles match those taken from turtles at the Japanese nesting sites.

Which one of the following, if true, most seriously weakens the reasoning above?

- (A) Nesting sites of loggerhead turtles have been found off the Pacific coast of North America several thousand kilometers north of the Baja peninsula.
- (B) The distance between nesting sites and feeding sites of Atlantic loggerhead turtles is less than 5,000 kilometers.
- (C) Loggerhead hatchlings in Japanese waters have been declining in number for the last decade while the number of nesting sites near the Baja peninsula has remained constant.
- (D) Ninety-five percent of the DNA samples taken from the Baja turtles match those taken from Atlantic loggerhead turtles.
- (E) Commercial aquariums have been successfully breeding Atlantic loggerheads with Pacific loggerheads for the last five years.

Weaken Question Problem Set

3. People who have specialized knowledge about a scientific or technical issue are systematically excluded from juries for trials where the issue is relevant. Thus, trial by jury is not a fair means of settling disputes involving such issues.

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

- (A) The more complicated the issue being litigated, the less likely it is that a juror without specialized knowledge of the field involved will be able to comprehend the testimony being given.
- (B) The more a juror knows about a particular scientific or technical issue involved in a trial, the more likely it is that the juror will be prejudiced in favor of one of the litigating parties before the trial begins.
- (C) Appointing an impartial arbitrator is not a fair means of settling disputes involving scientific or technical issues, because arbitrators tend to favor settlements in which both parties compromise on the issues.
- (D) Experts who give testimony on scientific or technical issues tend to hedge their conclusions by discussing the possibility of error.
- (E) Expert witnesses in specialized fields often command fees that are so high that many people involved in litigation cannot afford their services.

4. The five senses have traditionally been viewed as distinct yet complementary. Each sense is thought to have its own range of stimuli that are incapable of stimulating the other senses. However, recent research has discovered that some people taste a banana and claim that they are tasting blue, or see a color and say that it has a specific smell. This shows that such people, called synesthiacs, have senses that do not respect the usual boundaries between the five recognized senses.

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

- (A) Synesthiacs demonstrate a general, systematic impairment in their ability to use and understand words.
- (B) Recent evidence strongly suggests that there are other senses besides sight, touch, smell, hearing, and taste.
- (C) The particular ways in which sensory experiences overlap in synesthiacs follow a definite pattern.
- (D) The synesthetic phenomenon has been described in the legends of various cultures.
- (E) Synesthiacs can be temporarily rid of their synesthetic experiences by the use of drugs.

Weaken Question Problem Set

5. Archaeologist: A skeleton of a North American mastodon that became extinct at the peak of the Ice Age was recently discovered. It contains a human-made projectile dissimilar to any found in that part of Eurasia closest to North America. Thus, since Eurasians did not settle in North America until shortly before the peak of the Ice Age, the first Eurasian settlers in North America probably came from a more distant part of Eurasia.

Which one of the following, if true, most seriously weakens the archaeologist's argument?

- (A) The projectile found in the mastodon does not resemble any that were used in Eurasia before or during the Ice Age.
- (B) The people who occupied the Eurasian area closest to North America remained nomadic throughout the Ice Age.
- (C) The skeleton of a bear from the same place and time as the mastodon skeleton contains a similar projectile.
- (D) Other North American artifacts from the peak of the Ice Age are similar to ones from the same time found in more distant parts of Eurasia.
- (E) Climatic conditions in North America just before the Ice Age were more conducive to human habitation than were those in the part of Eurasia closest to North America at that time.

6. Lobsters and other crustaceans eaten by humans are more likely to contract gill diseases when sewage contaminates their water. Under a recent proposal, millions of gallons of local sewage each day would be rerouted many kilometers offshore. Although this would substantially reduce the amount of sewage in the harbor where lobsters are caught, the proposal is pointless, because hardly any lobsters live long enough to be harmed by those diseases.

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

- (A) Contaminants in the harbor other than sewage are equally harmful to lobsters.
- (B) Lobsters, like other crustaceans, live longer in the open ocean than in industrial harbors.
- (C) Lobsters breed as readily in sewage-contaminated water as in unpolluted water.
- (D) Gill diseases cannot be detected by examining the surface of the lobster.
- (E) Humans often become ill as a result of eating lobsters with gill diseases.

Weaken Question Problem Set Answer Key

Question #1. Weaken. The correct answer choice is (B)

This is a nice straightforward question to start the problem set. The conclusion of the argument appears at the end of the stimulus: human beings "cannot be made happy by anything that does not involve gratification of these [cognitive] faculties." To weaken the argument we must show that individuals can be made happy without gratification of the cognitive faculties. If you do not know the meaning of "cognitive," the problem can be challenging. Cognitive means "relating to the mental process of knowing, including reasoning and judgment." In other words, cognitive faculties are thinking and analyzing, etc.

Answer choice (A): This answer attempts to attack the first premise, but fails. Although it is fantastic news that dolphins and chimps can rationally communicate, this fact has no impact on the argument at hand. Even though they have this communication ability, human cognitive faculties can still be superior.

Answer choice (B): This is the correct answer, and a somewhat risqué one at that. By showing that many people enjoy the physical more than the cognitive, the answer shows that people can be made happy by gratification of something other than cognitive faculties. Cognitive faculties, being mental in nature, are of course distinct from physical pleasures.

Additionally, this answer has the benefit of addressing the phrase in the stimulus regarding awareness of cognitive faculties: "once humans become aware of these..." In this answer, unlike others, the individuals are known to be familiar with cognitive faculties. While we believe that recognition of cognitive faculties is inherent in adults (or some of the named types in other answers, such as *serious athletes*, who by definition would have to be teens or adults), this answer is stronger because it explicitly addresses the issue.

Answer choice (C): A preference for a certain type of music is likely a cognition-driven preference, and this preference is expressed by an adult who would certainly be aware of cognitive faculties. And, since no suggestion is made that individuals can be made happy without gratification of the cognitive faculties, this answer is incorrect.

Answer choice (D): This can be an attractive answer at first, but it depends on the assumption that the serious athletes are happy due to their athletic endeavors. However, that connection is not explicitly stated, and it could be that the serious athletes are happy because of some gratification of their cognitive faculties, in their respective sport or otherwise.

Answer choice (E): This answer is similar to answer choice (D). A gourmet is a connoisseur of food and drink, and a connoisseur is a person with deep or special knowledge of a subject. In this sense, there would be a cognitive element to the enjoyment of gourmet food. As such, this answer may serve to slightly strengthen the argument because it shows that an individual with experience with the non-cognitive still retains a love of the cognitive.

Weaken Problem Set Answer Key

Question #2. Weaken. The correct answer choice is (D)

The argument uses the premise that Baja turtles and Japanese turtles share ninety-five percent of their DNA to conclude that Baja turtles hatch in Japanese waters 10,000 kilometers away. This sounds like convincing statistical evidence unless you realize that many organisms share DNA. For example, humans and chimpanzees share about 98% of their DNA (we share about 75% of our DNA with dogs, for that matter). Since Baja and Japanese turtles come from the same species, it is not surprising that they would share a high percentage of their DNA. Regardless of whether or not you saw this connection, you should have been skeptical of the reference to *juvenile* turtles travelling 10,000 kilometers. Such a lengthy trip by a juvenile animal is unlikely, and calls into question the soundness of the argument.

Answer choice (A): This answer does not impact the argument because no details—DNA or otherwise—are given about the turtles at these nesting sites off the Pacific coast of North America.

Answer choice (B): The fact that Atlantic turtles have nesting and feeding sites no more than 5,000 kilometers apart does not attack the argument because the argument is about *Baja* turtles.

Answer choice (C): This answer attempts to weaken the argument by inducing you to conclude that if the Japanese hatchlings are declining but Baja sites are constant, then the Baja sites cannot be supplied by the Japanese hatchlings. But, the answer choice moves from the number of *hatchlings* to the number of *sites*. Even with a declining number of hatchlings, the number of sites could remain constant, albeit with fewer turtles at each. Because of this possibility, the answer does not undermine the argument.

Answer choice (D): This is the correct answer. The answer shows that all turtles in the argument have the same ninety-five percent DNA, meaning that the Baja turtles did not have to take the 10,000 kilometer trip.

Answer choice (E): The breeding between species was not an issue in the stimulus.

Question #3. Weaken. The correct answer choice is (B)

The first sentence is a premise, and the second sentence is the conclusion of this argument. To attack this conclusion, look for an answer choice that shows that the exclusion of knowledgeable individuals from scientific or technical issue trials is a fair way of proceeding in these trials.

Answer choice (A): This is an Opposite answer that strengthens the conclusion. If specialized knowledge of these issues makes it more likely that the juror can comprehend the testimony being given, then these individuals should not be excluded from juries, and their exclusion makes trial by jury an unfair means of resolving a dispute.

Answer choice (B): This is the correct answer. If the specialized knowledge is likely to produce a prejudice in a juror, then by all means they should be excluded from the jury. Thus, instead of trial by jury being an unfair means, it is made more fair by the exclusion of these individuals. The answer is a tricky one because most people initially think the answer agrees with the argument. It agrees with the principle of the premise, but not with the conclusion drawn from that premise.

Weaken Problem Set Answer Key

Answer choice (C): This answer simply notes that arbitrators are not a fair means of settling scientific or technical issue debates. This has no impact on the fairness of jury trials involving these same issues.

Answer choice (D): This answer is about the *experts* testifying at scientific or technical issue trials. This information does not attack the claim that jury trials are unfair because of the exclusion of *jurors* with knowledge of these issues.

Answer choice (E): This answer can be eliminated by reasoning similar to that used to eliminate answer choice (D).

Question #4. Weaken. The correct answer choice is (A)

The conclusion is in the last sentence, that some people “have senses that do not respect the usual boundaries between the five recognized senses.” Instead of keeping their senses distinct, these individuals have an overlap.

Incidentally, the condition discussed in the stimulus is not made up: synesthiacs (or synesthetes) have a real condition known as synesthesia. Regardless of that fact, you must find an answer choice that undermines the conclusion of the argument, something that would suggest their senses do respect the usual boundaries.

Answer choice (A): This is the correct answer. If the synesthiacs have a systematic impairment in their use of language it may not be that their senses overlap but rather that they lack the ability to properly express themselves. Thus, their claim to taste a banana and see blue might not be a reflection of that actually occurring but rather a reflection of the words they use to describe taste. If so, this would undermine the conclusion that the senses of synesthiacs do overlap. This is a difficult answer to identify as correct, and less than 50% of test takers are able to do so.

Answer choice (B): The appeal of this answer—and many students keep this as a Contender—is that it suggests that perhaps other senses are operating, and some test takers make the judgment that these additional senses account for the sensory overlap in synesthiacs. Unfortunately, that judgment is not supported by the answer choice. Not enough information is provided by the answer choice to say what role, if any, is played by these other senses.

Answer choice (C): This is the most popular wrong answer choice. Do not forget to personalize the argument and consider how the author would react if faced with this answer. Would he or she surrender and admit the answer overpowers the argument? Doubtful. The author would probably react to this answer by saying something along these lines, “Exactly. Since all the individuals are synesthiacs and suffer from the same condition, it is not surprising that there would be patterns in the way the senses overlap. Just as everyone afflicted with emphysema has difficulty breathing, the sensory patterns exhibited by synesthiacs are just a product of the condition. The fact that their senses do not follow the usual boundaries and do so in certain ways is to be expected.” So, instead of surrendering to the answer, the author would indicate that the answer agrees with the conclusion.

Weaken Problem Set Answer Key

Answer choice (D): This answer is out of the scope of the argument. The “legendary” status of synesthiacs does not shed any light on the operation of their five senses.

Answer choice (E): If anything, this may strengthen the argument by indicating that the synesthiacs are experiencing some type of phenomenon. Beyond that point, however, no information is given to suggest that their senses respect the usual boundaries.

Question #5. Weaken. The correct answer choice is (A)

The stimulus sets up an interesting argument that appears fairly reasonable. A mastodon skeleton has been found containing a human-made projectile dissimilar to those of the part of Eurasia *closest* to North America and because Eurasians did not settle in North America until shortly before the peak of the Ice Age, the first Eurasian settlers of North America probably came from a *more distant* part of Eurasia than the area nearest North America. To make a very rough analogy using dialects, it is like a resident of Washington, D.C. saying, “The visitors we just met did not sound like they were from Virginia, so they must be from a much more distant part of the U.S.” Reading that rough analogy, you can see that the speaker has assumed that the visitors are from the U.S. Of course, that does not have to be the case—they could be from England or France or elsewhere. The same form of assumption has occurred in the argument, and the author has assumed that the *projectile* is of Eurasian origin.

Answer choice (A): This is the correct answer. This answer hurts the argument by indicating that the projectile is apparently not Eurasian, suggesting that the first Eurasian settlers could have come from any part of Eurasia, including the area closest to North America.

Answer choice (B): This is the most attractive wrong answer, but regardless, this answer does not hurt the argument. Some students attempt to conclude that since the people were nomadic, they could have moved to areas farther away and found projectiles like the one in the mastodon. However, even though these individuals remained nomadic, they were apparently nomadic within the area of Eurasia closest to North America because the answer clearly states, “The people who *occupied* the Eurasia area closest to North America...” Hence, they did not necessarily occupy other areas and this answer does not hurt the argument.

Answer choice (C): This Opposite answer supports the argument by showing that the projectile in the mastodon was not a one-time, anomalous occurrence. If other, similar projectiles come to light, then the author’s position would be strengthened.

Answer choice (D): This Opposite answer supports the argument by connecting other artifacts of the same age as the projectile to parts of Eurasia more distant than the area of Eurasia closest to North America. This adds further evidence to the idea that the first Eurasian settlers of North America probably came from a more distant part of Eurasia than the area nearest North America.

Answer choice (E): This Opposite answer supports the argument by indicating that the part of Eurasia closest to North America may not have been inhabited just before the Ice Age. If this area was uninhabitable, then it is more likely that settlers coming to North America came from more distant regions.

Weaken Problem Set Answer Key

Question #6. Weaken. The correct answer choice is (E)

This is a great separator question, and approximately one student in three answers this question correctly. However, some students are able to annihilate this question because they see a reference in the first line that raises an important issue that goes unanswered. That reference is to lobsters "eaten by humans." The argument asserts that diverting the sewage in the harbor is a moot point because hardly any lobsters live long enough to be harmed by the diseases caused by the sewage. This may be, but what about the humans who eat the lobsters that live in the sewage-contaminated environment? The author fails to address this point.

The conclusion of the argument is near the end: "the proposal is pointless," and this is based on the premise that "hardly any lobsters live long enough to be harmed by those diseases."

Answer choice (A): The argument is based on the sewage contamination of the harbor. Although other contaminants may be present, they are not addressed by the argument, and thus this answer does not undermine the author's position.

Answer choice (B): This answer has no impact because the argument is about lobsters that are caught *in the harbor*. So, while lobsters in the open ocean may live longer, the author's point about lobsters in the harbor not living long enough to contract a gill disease is untouched.

Answer choice (C): The issue is not breeding frequency but longevity. So, while we are pleased to hear that lobsters in sewage-contaminated waters breed frequently, this fact does not impact an argument based on the age and disease contraction.

Answer choice (D): Although whether the lobsters contract a gill disease is a critical issue in the argument, the method of determining whether a lobster has a disease is not a critical issue. Again, keep in mind the heart of the argument:

Premise: "hardly any lobsters live long enough to be harmed by those diseases."

Conclusion: "the proposal [to reroute harbor sewage] is pointless."

Nothing in that argument concerns the detection of the gill diseases.

Answer choice (E): This is the correct answer. As discussed above, the author fails to address the effect of the contaminated lobsters on humans who consume them, and this answer attacks that hole. If humans become ill as a result of eating lobsters with gill diseases, and gill diseases are more likely to arise when the lobsters live in the sewage-contaminated waters, then the conclusion that the proposal is pointless is incorrect.