

In this short argument, the first two statements provide the reasons to accept the third statement. Thus, the premises are: *All basketball players are tall*, and *Christopher is a basketball player*. The conclusion is: *Christopher is tall*.

It is worth mentioning again that some arguments presented on the LSAT may contain factual inaccuracies or opinions that test takers disagree with. The LSAT test developers purposely design certain exercises in this manner to try and trip up test takers who draw upon their own knowledge, common sense, or experience. It is important to remember that the test is evaluating one's ability to reason logically and use provided "evidence," rather than assess their opinions and subject area expertise.

Assumption

In the structure of an argument, an *assumption* is an unstated premise. Many Logical Reasoning questions will ask you to identify the assumption within arguments, and you must find something that the argument is relying on that the author is not stating explicitly. Many strengthening and weakening questions deal with unstated assumptions, as well as necessary and sufficient assumption questions. Let's take a look at what an unstated assumption looks like:

All restaurants in the Seattle area serve vegan food. *Haile's Seafood* must serve vegan food.

Let's identify all parts of the argument, including the unstated assumption. The conclusion of this argument is the last sentence: *Haile's Seafood* must serve vegan food. The premise we are given is the first sentence: All restaurants in the Seattle area serve vegan food. Now let's ask ourselves if there's a missing link. How did the author reach this conclusion? The author reached this conclusion with an unstated assumption, which might look like this: *Haile's Seafood* is in the Seattle area. Now we have the argument:

Premise: All restaurants in the Seattle area serve vegan food.

Unstated Assumption: *Haile's Seafood* is in the Seattle area.

Conclusion: *Haile's Seafood* must serve vegan food

Another way to look at the missing link is like this: there is a connection between "Seattle area" and "vegan food," and one between "*Haile's Seafood*" and "vegan food", but there is no connection between "Seattle area" and "*Haile's Seafood*." The unstated assumption identifies this connection.

Fact Sets

Stimuli that are fact sets rather than arguments contain a group of statements but lack any sort of conclusion. For example, consider the following fact set:

There are three elementary schools in town. Fort River has 240 students. Wildwood has 275 students. Crocker Farm has 180 students.

An argument, by definition, must include a conclusion; therefore, the prior four sentences do not constitute an argument, because no conclusion is presented. Instead, the statements simply assert facts about the elementary schools without inflicting judgement or answering *so what?* One useful tip for test takers to determine whether the stimulus contains an argument or a fact set is to evaluate, on a very basic level, whether they feel a reaction after reading. Fact sets, by nature, do not evoke much of an emotional response and read more like a list of assertions with no obvious "point." Arguments, on the other hand, often draw readers in more, causing them to "care," question, disagree, or otherwise evoke some sort of emotional reaction.

Again, arguments must contain a conclusion, which is a judgement or statement that the author wants readers to believe given one or multiple reasons (premises) that serve as evidence or tools to persuade the readers to accept the conclusion. The conclusion is commonly signaled by words such as *so, therefore, thus, for this reason, accordingly, hence, shows that, consequently, as a result*, etc. Words that are commonly indicative of premises include *because, for, since, in order to, for example, as indicated by, owing to, due to, this is evidenced by*, etc. While premises and conclusions are often signaled by these words and phrases, they do not always include such explicit indicators.

When stimuli are true arguments, it is critical to identify the conclusion prior to considering the answer choices to the question because the crux of the question often lies in the conclusion. Failing to fully grasp and mentally consider the conclusion can cause unfocused test takers to fall for red herrings or answer choices purposely designed to contain just small inaccuracies or inconsistencies from the conclusion or premises.

Patterns of Reasoning

One of the question types in the Logical Reasoning section of the LSAT exam will ask about patterns of reasoning. Patterns of reasoning involve deconstructing an argument and putting general terms to each of the steps involved. Then, it is up to the test taker to apply those general terms to another specific argument. The following is an example of a question stem involving patterns of reasoning:

Cassandra will go to the auto repair shop this evening only if Bobby goes to the tire store. Bobby won't go to the tire store unless Sara agrees to go to the tire store. However, Sara refuses to go to the tire store. Therefore, Cassandra will not go to the auto repair shop this evening.

The pattern of reasoning in which one of the following arguments is most similar to that in the argument above?

- a. If Laura goes on vacation, it is highly unlikely that Mercedes will buy a car this evening. Laura will not go on vacation unless she finds someone to water her plants. Laura has found someone to water her plants, so Mercedes will not buy a car this evening.
- b. Sam will mow the grass this morning only if Juan goes to the movies. Juan won't go to the movies unless Braxton agrees to enroll in college. Therefore, Sam will mow the grass this morning.
- c. Katie will start on her painting only if Catarina does not play in her soccer tournament today. Since Catarina ended up getting hurt, she cannot play in her soccer tournament, so Katie will start on her painting today.
- d. Jackson will do the dishes tomorrow only if Maria goes to school. Maria will not have to go to school unless Jake is sick. Since Jake is not sick, Jackson will not do the dishes tomorrow.
- e. Billie can go to the auto repair shop if Vicky goes to the tire store. Vicky won't go to the tire store unless Samson agrees to go to the tire store. However, it is highly unlikely that Samson will agree to go to the tire store. Therefore, Billie will most likely not go to the auto repair shop.

Let's find out what the logical structure of this argument is. For visual learners, it may help to draw a diagram of the logical sequence of statements. For now, we can see the following:

Cassandra @ auto shop → Bobby @ tire store

Remember, though, that Bobby will go to the tire store only if Sara goes. So, we have:

Cassandra @ auto shop → Bobby @ tire store → Sara to tire store

Since we know the information on who did what, the chain looks like this in its reasoning:

Cassandra no auto shop → Bobby no tire store → Sara no tire store

Since Sara refuses to go to the tire store, Bobby will not go to the tire store. Since Bobby will not go to the tire store, then Cassandra will not go to the auto shop. The pattern of reasoning that relates to this stem the most is Choice *D*.

Jackson no dishes → Maria no school → Jake not sick

We see that the pattern is the same as in the question stem. Even the language looks the same. We see the conditional statements mirroring each other (if → then). Here are what the other patterns look like:

Choice A

Mercedes highly unlikely car → Laura @ vacation → Stranger @ plants

In Choice *A* we are hit with the language of “highly unlikely,” which we do not see in the original question stem. Mark this one as incorrect.

Choice B

Sam @ grass → Juan movies → Braxton ? college

In Choice *B*, we are missing a key ingredient toward the end of the statement. We’re going to assume that Braxton probably enrolled in college since Sam ended up mowing the grass. However, since we are not told this information for sure, then the pattern of reasoning is different from that in the stem.

Choice C

Katie @ painting → Catarina no soccer tournament

In Choice *C*, we see that the pattern is off because we only have two people in the pattern instead of three. Pay attention to the number of constituents within the pattern as well as the language used to express the pattern.

Choice E

Billie unlikely to auto repair store → Vicky probably not tire store → Samson highly unlikely tire store.

Again, pay attention to the language. The language in this choice is not conditional statements (if → then). Instead, the language is unsure of what each entity will do. What’s tricky about this choice is that it deals with the same destinations. However, since the language within the pattern is different, it is incorrect.

Drawing Well-Supported Conclusions

The conclusion question types in the Logical Reasoning section presents evidence within the stimulus and asks test takers to draw a conclusion from that evidence. Some of the conclusion question types will ask what test takers can “infer,” “imply,” or “conclude” from the given information. Other language used in conclusion questions might consist of the following:

- Must also be true
- Provide the most support for
- Which one of the following conclusions

- Most strongly supported by
- Properly inferred

Making inferences and drawing conclusions involve skills that are quite similar: both require readers to fill in information the test writer has omitted. To make an inference or draw a conclusion about the text, test takers should observe all facts and arguments the test writer has presented. The best way to understand ways to drawing well-supported conclusions is by practice. Let's take a look at the following example:

Nutritionist: More and more bodybuilders each year turn to whey protein as a source for their supplement intake to repair muscle tissue after working out. More and more studies are showing that using whey as a source of protein is linked to prostate cancer in men. Bodybuilders who use whey protein may consider switching to a plant-based protein source in order to avoid developing the negative effects that come with whey protein consumption.

Which of the following most accurately expresses the conclusion of the nutritionist's argument?

- Whey protein is an excellent way to repair muscles after a workout.
- Bodybuilders should switch from whey to a plant-based protein.
- Whey protein causes every single instance of prostate cancer in men.
- We still don't know the causes of prostate cancer in men.
- It's possible that bodybuilding may cause prostate cancer.

The correct answer choice is *B*: bodybuilders should switch from whey to a plant-based protein. We can gather this from the entirety of the passage, as it begins with what kind of protein bodybuilders consume, the dangers of that protein, and what kind of protein to switch to. Choice *A* is incorrect; this is the opposite of what the passage states. When reading through answer choices, it's important to look for choices that include the words "every," "always," or "all." In many instances, absolute answer choices will not be the correct answer. This example is shown in Choice *C*; the passage does not state that whey protein causes "every single instance" of prostate cancer in men, only that it is *linked* to prostate cancer in men. Choice *D* is incorrect; although the nutritionist doesn't list all the causes of prostate cancer in men, the nutritionist does not conclude that we don't know the causes of prostate cancer in men either. Finally, Choice *E* is incorrect. This answer choice makes a jump from bodybuilding to prostate cancer, which is incorrect. The passage states that bodybuilders consume more whey protein, which is linked to cancer, not that bodybuilding *itself* causes cancer.

The key to drawing well-supported conclusions is to read the question stem in its entirety a few times over and then paraphrase the passage in your own words. Once you do this, you will get an idea of the passage's conclusion before you are confused by all the different answer choices. Remember that drawing a conclusion is different than making an assumption. With drawing a conclusion, we are relying solely on the passage for facts to come to our conclusion. Making an assumption goes beyond the facts of the passage, so be careful of answer choices depicting assumptions instead of passage-based conclusions.

Reasoning by Analogy

Analogy questions in the Logical Reasoning section of the LSAT exam are very common. In its most basic definition, an *analogy* is a comparison between two things. Lawyers use reasoning by analogy frequently in their professional careers in order to compare past successful cases with present cases they are trying to argue. For analogy questions, there are several specific question types you will run into:

Flawed Reasoning

For analogies in flawed reasoning questions, many people make the mistake of assuming that the two things being compared *are alike in every respect*. If they are not, it is flawed reasoning by analogy. Let's look at an example at a faulty analogy in a flawed reasoning question:

Mary Oliver is a great poet, and she practices writing every single day. Therefore, if I practice writing every single day, I will be a great poet.

The example above is flawed because it assumes that Mary Oliver and I are the same in every respect. Perhaps she received a better education than me, and that is why she is a great poet. Or maybe her father was a poet and taught her everything she needed to know to be a great poet. The possibilities are endless as to why this analogy does not work out.

Necessary Assumption

We will talk in depth about necessary assumption later, but for the sake of necessary assumption dealing with analogy, let's use the same example above. A necessary assumption means that at least one thing *must be required* in order for the argument to be true. Here is a proper answer to a necessary assumption question dealing with analogy:

Mary Oliver practices writing, and her practice causes her to become a stronger writer. Therefore, if I practice writing every day, I will become a stronger writer.

What is an assumption on which this argument relies?

All humans that practice writing will get better due to the neurological structure of the brain and how the brain responds to that practice.

For necessary assumption, we want to look at how the two entities are similar *in at least one aspect*. We see here that, at the very least, Mary Oliver and I are both human, and that our brains will respond similarly to practice, leading to stronger writing.

Sufficient Assumption

Again, we will go into more depth on sufficient assumption questions later, but let's look at these types of questions dealing with analogies. For a sufficient assumption, we want the two entities to be alike *in all related respects*.

Mary Oliver practices writing, and her practice causes her to become a stronger writer. Therefore, if I practice writing every day, I will become a stronger writer.

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

Every human responds in the same way when they practice writing.

Whether this is true in real life or not, we have a valid argument with this sufficient assumption question. Analogies in the sufficient assumption context tell us that Mary Oliver and I are the same in every way when we practice writing; therefore, my assertion to become a stronger writer is totally valid.

Recognizing Misunderstandings or Points of Disagreement

On the LSAT, some question stems will have two separate passages addressing a similar topic. Both passages will be spoken by someone like a scientist, politician, or doctor, or it might even just be someone's last name, like "Rodriguez" or "Powell." The two passages are meant to disagree with or

misunderstand each other. The question will usually ask a “point at issue” between the two speakers, or how the two speakers disagree in the passages. The answer explanations will try to throw in choices that relate to the topic but ones the speakers do not have opinions on. Watch out for these, as they are only meant to confuse you. Regarding the choices, ask yourself, first and foremost, does either speaker have an opinion on this statement? And if no opinion is expressed in the original passage, mark the answer as incorrect. Let’s look at an example of a Point at Issue question:

Jones: Our company’s decision to change driving routes may have been detrimental to the company. The new route is longer by half an hour, which cuts down the efficiency of when the goods get delivered, which, in turn, makes us lose money.

Martinez: The newer, updated route was the best decision. The old route had safety hazards for truck drivers. The newer route will cut down on accidents, which will make up for the cost of delivering the goods later.

A point of issue between Jones and Martinez is whether

- a. the new driving route will save the company money.
- b. the old driving route is safer than the new driving route.
- c. the company will go bankrupt due to this change in route.
- d. the shipment will make it on time via the new route.
- e. the goods are too expensive and should be lowered.

The correct answer choice is *A*. Jones and Martinez disagree over whether the new driving route will save the company money. Choice *B* is incorrect; although Martinez admits that the new route is safer than the old route, Jones has no opinion on safety, which makes this choice incorrect. Choice *C* is incorrect; neither of the speakers mention the company’s potential to go bankrupt. In Choice *D*, Jones is worried about shipments making it on time, but Martinez is not concerned with time here; Martinez is more concerned with safety. Finally, Choice *E* is incorrect; neither speaker worries about the price of the goods. When reading the answer choices, make sure each speaker has an opinion concerning the one you choose. Here, we see both speakers mention money saved, so Choice *A* is the correct answer choice.

Determining How Additional Evidence Affects an Argument

Questions seeking evidence that most undermines or weakens the argument require test takers to read the stated premises in the argument and ask themselves what must be assumed true, but is not explicitly stated in the provided premises, in order for the argument to jump to its conclusion. The correct answer choice most directly contradicts, rules out, or refutes the identified unstated assumption or missing link. Questions seeking evidence that most strengthens or supports the argument require a similar approach with test takers considering the same question as they read the argument. Once the assumption is identified, they should review the answer choices for the one that most directly affirms or presents that missing link. First, let’s take a look at a weakening question below:

New electronic watches called “LiteBites” promise to track the fitness goals of whomever purchases them. The sales have increased in the past year. Although these watches have been extremely popular for a decade since they came out, this popularity is expected to recede from here on out, due to the fact that the age group purchasing these watches, ages 16 to 25, is expected to decline over the next ten years.