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LOGICAL REASONING

<div style="text-align:right">

**review,
timing strategies, and
final final thoughts**

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Our final lesson. I hope you've enjoyed the ride. And, of course, more importantly, I hope you feel that you are much better at the LSAT than you were at the start of this book. Let's finish by talking about the most important section: Logical Reasoning.

Here is a quick rundown of the key Logical Reasoning issues we have discussed:

There are many skills necessary for Logical Reasoning success, but the key skill required for success is the ability to see what is wrong with arguments (4).

Reasoning flaws exist between the support and the conclusion (4).

Mindset impacts what we think about, and we want to read all arguments with a critical mindset (4).

You can describe any flaw using the phrases "The author fails to consider…" or "The author takes for granted…" (4).

Many arguments are flawed because the author overestimates the importance of one piece of support. In these cases, the author often overvalues a trait, overvalues an opinion, or uses a small sample set (5).

The type of support that is often easiest to overvalue is that which is necessary for the conclusion but is not enough to prove that the conclusion is definitely true (5).

Many arguments are flawed because the author equates two things that are not necessarily the same. In these cases, the author often falsely equates subject matter, characteristics, or relationships (6).

Fairly frequently, arguments are flawed because the author equates one way of arriving at an outcome with the only way of arriving at an outcome (6).

Many arguments are flawed because the author brings together two supporting premises to conclude something that the combination of premises doesn't warrant. These arguments often have context issues, and they often have the same issues mentioned in Lessons 6 and 7 (7).

Correlation can be used to strengthen a point about causation, and more commonly, a lack of correlation can weaken a point about causation. However, correlation is not causation, and correlation can never prove causation (7).

Each type of question presents a unique task, but the question types are all related. It helps to read the question stem first so that you can go into the stimulus with a clear understanding of your task (13).

The main point of an argument will be subjective, and it will have support (13).

Intermediate conclusions are supporting premises that are themselves subjective and have support (13).

For all Logical Reasoning questions, you want to look to eliminate wrong answers before you look to confirm the right one (13).

For Flaw questions, you should expect that you can anticipate the substance of the correct answer. For harder questions, prepare for the answers to be written in an abstract or complex way (14).

Basic Assumption questions are Flaw questions, but with the flaws described as assumptions made by the author (14).

An assumption is an unstated and unjustified belief (14).

For Match the Flaw questions, make sure you have a clear understanding of the flaw before moving on to the answers, and give yourself extra time to get through your process (14).

A sufficient assumption is one that fills all holes between support and conclusion and makes the conclusion 100% valid (15).

Understanding the language of conditional logic can be as challenging as understanding the relationships. The key is to be comfortable and automatic with the most common and simple terms and to have systems for handling the more challenging ones (15).

Supporting Principle and Conform to a Principle questions are very similar to Sufficient Assumption, and the same strategies can be used. However, these questions tend to talk more in generalities, and they tend to be less exact than Sufficient Assumption questions (15).

Required Assumption questions ask us to identify one answer that needs to be true if the conclusion is to be valid. The right answer need not prove the conclusion to be true or even play a big role in proving the answer true (16).

A great way to confirm whether an answer is necessary to the conclusion or not is the negation test (16).

Strengthen and Weaken questions ask us to strengthen or weaken not just the conclusion but the bond between support and conclusion. Though questions ask which answer would most strengthen or most weaken, typically there will be just one answer that weakens or strengthens, respectively (16).

The importance of developing the correct problem-solving habits cannot be understated. The same six-step process can be used for all argument-based questions. When you are not certain about your performance on a step, often the next step in the process is the best tool for regaining control of a question (17).

Objective questions require you to understand the author's meaning and purpose, but they do not require critical evaluation of reasoning (20).

For almost all Reasoning Structure questions, you should be able to predict the substance of the correct answer before looking at the answer choices, but you should still go through the process of eliminating wrong answers before selecting the right one (20).

Inference questions require us to use the stimulus to evaluate the answer choices, and the best way to arrive at an answer is to eliminate the four choices that are not justified by the text (22).

Certain Sufficient Assumption and Inference questions require us to handle a lot of conditional statements. In these cases, our job is to be able to recognize valid links and invalid links (22).

Give an Example questions are the mirrored twins of Supporting Principle questions, and the key is to retain as simple an understanding of the principle as possible as you eliminate incorrect answer choices (22).

For Identify the Disagreement questions, person two disagrees with one part of person one's statement, but it may or may not be person one's main point (23).

For Explain the Discrepancy questions, the key is to have a clear sense of the discrepancy before going into the answer choices. You can make this easier by asking yourself "How come...?" (23).

Logical Reasoning tests your ability to read and to reason, and it tests your mental discipline (24).

Your skills and habits will determine test-day performance (24).

Timing Strategies

A typical Logical Reasoning section has twenty-five questions, and that works out to about 1:24 per question. However, you should expect that the amount of time required will vary drastically from question to question. You may find that, over the course of five problems, you spend 1:30, 0:40, 1:50, 1:15, and 0:25. Such inconsistency is fine and healthy; the key is to have an average rate that allows you to work at a comfortable pace.

The variations in how long a question takes are based off of two factors: the design of the question and the difficulty of the question. To give an analogy, in thinking about how long it will take to do a bathroom remodel, one has to consider the different things that need to get done (a bathroom with two sinks, a shower, and a bathtub will likely take longer than a half bath with just a sink) and the difficulty of the work (it's one thing to install IKEA cabinets; it's another to custom-make and install your own cabinets). Down below and to the side you will see some additional notes about questions that you should expect to take less time or more time.

These general guidelines should help give you a sense of when you are using time efficiently and when you are not. In particular, if you find that you spend more time on certain types of questions than you perhaps should, it may be an indication that you should review your process for those questions.

Pattern of Difficulty for a Typical Section
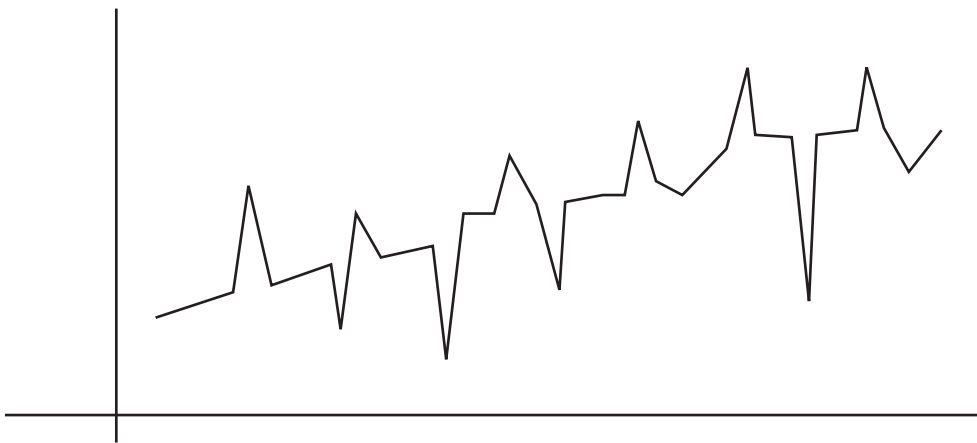
In general, and on average, questions get more difficult as a Logical Reasoning section progresses. And typically the sections will rise in difficulty, plateau (that is, the difficulty will even out), rise in difficulty, and, around question 18 or so, plateau a final time. Keep in mind that the difficulty of individual questions can be quite unpredictable. The test writers love to sneak in an unassumingly difficult question or two in the first ten, and there are sometimes questions beyond #20 that are no more difficult than the first few questions in a section.

Question types that typically take a little less time...	Question types that typically take a little more time...
What's the flaw?	Match the flaw
What's the assumption?	Match the reasoning
Find the conclusion	Sufficient assumption
Identify the role	Supporting principle
Explain this	Inference
	Give an example

Tracking Time During a Test

As we've discussed, the pressure of the exam wreaks havoc on our internal sense of timing. That's a big reason why it's particularly dangerous not to track time during an exam. Even if your normal pace is fast enough that you never have timing issues during practice, you may find that the pressure of the exam causes you to slow down (or speed up), and of course you don't want to find that you've either finished the section way early, while guessing on many questions you should have spent more time on, or that you were too deliberate on the earlier questions and so didn't leave yourself enough time to handle the later ones.

Therefore, of course it's imperative that you go into the exam with some sort of system for tracking your time. It's also important that you practice using this system a lot before test day so you're able to implement it without much thought or effort during the real exam.

Thinking about your timing after every question would be a huge distraction and is not recommended. Thinking about your timing just once or twice during a section is not enough to catch issues and stay on top of things. Somewhere in between those extremes lies the sweet spot.

In my experience, checking your time once every five questions is an effective strategy. Five questions is enough to even out the question-to-question fluctuations, and every five questions is frequent enough so that you can keep on top of your timing and adjust it as needed.

Per the graph on the previous page, it makes sense to allocate more time to questions that appear later in the section—these are more difficult and will on average take you more time. If we think of a twenty-five question section in terms of five five-question sections, you can use a simple escalating scale to allocate time to each section: 5 minutes for the first 5 questions, 6 minutes for the next five, 7 minutes for the next five, 8 minutes for the next five, and 9 minutes for the final five.

Of course, you don't want to waste precious time and mental energy doing arithmetic in your head, so it's easier to use benchmarks to think of your timing. Here are the benchmarks you can use for the timing strategy we just laid out:

After question 5: 5-minute mark
After question 10: 11-minute mark
After question 15: 18-minute mark
After question 20: 26-minute mark

Just as with Reading Comprehension, don't try to keep these benchmarks in your head—instead, write them on the front cover of your workbook before the section officially begins. If at all possible, try to stay a minute or two in front of your benchmarks—you'll find that this gives you a great boost of confidence. And don't fret if you fall a minute or two behind. Maybe you've encountered an unusual set of challenging early questions, and the ones in the middle of the section will be easier than normal—you can make up that time just through the normal course of events. Practice using these benchmarks on every practice exam. This will help you develop a strong natural pace, and it will make it so you need to spend less time and energy thinking about your pace and your timing on test day.

Finally, don't be afraid to personalize the benchmarks listed above. If your goal is to survive the section with four or five misses, you may want to devote extra time to the earlier questions and spend less time on certain questions that appear later in the section. If your goal is 180, and you can't afford to miss any questions, you may want to work on going even faster through the first ten or fifteen questions so that you have plenty of time for the hardest ones. These two sample adjustments are broken down in greater detail below.

Frank Goal: -5

Issues: Makes mistakes on easy questions and gets stuck on some of the hardest ones.

Sample modified strategy:

After question 5: 6-minute mark
After question 10: 13-minute mark
After question 15: 21-minute mark
After question 20: 28-minute mark

What this accomplishes:

It allows Frank extra time on the questions he needs to get right—he needs to get the great majority of those between 1 and 15 correct. It also forces him to make tough timing decisions on the later questions, which are likely to be the hardest (that is, the ones that provide the least chance of points returned on time invested).

Franny Goal: -0

Issues: Gets stuck every once in a while on the hardest questions.

Sample modified strategy:

After question 5: 5-minute mark
After question 10: 10-minute mark
After question 15: 15-minute mark
After question 20: 25-minute mark

What this accomplishes:

Franny is at a level where she is seeking perfection—this likely means that two other things are also true about her: one, she doesn't find the easier questions to be challenging and doesn't make mistakes on them, and two, she's probably very fast at these easier questions.

For Franny, the later questions will likely determine her score, and she needs as much time as possible to deal with those tough questions. Therefore, it makes sense to practice pushing the pace as much as possible on all the others.

How to Improve Timing

Let's first think about two different types of timing issues:

(1) You've spent most of your prep time focusing on individual question types, and during the course of a section, having to jump from one type of question to another throws you off your game and forces you to waste time.

This is certainly understandable, and we all experience this to a certain extent. Get thrown only fastballs for a while, or only curveballs, and when you have to go up to bat not knowing which one to expect, it's understandable you might not perform as well.

For most people, working on full sections is the best way to combat this, and the best way to get used to jumping from one question type to another. If the ten sections in your final five exams are not enough for you, re-solve full sections of questions from 52-56, or purchase additional sections to practice on.

If you want to try to accelerate the process of getting used to jumping from question type to question type, I have one extra exercise that you might find useful: write down basic strategies (no more than a few steps and maybe one reminder for yourself) for each question type on three-by-five note cards, and have these note cards spread out in front of you as you take a practice exam. For each question, read the stem, quickly look at the corresponding note card, then go back to solving the question.

A second reason you can have trouble with timing in the section is...

(2) You are not as fast at certain types of questions as you should be.

As we've discussed many times, timing is most directly a by-product of process. If you use an efficient process, even if you are not a fast reader or a fast thinker, you can easily finish all the questions on time. When people spend too long on questions, it's typically not because they can't read or think fast enough. It's because they spend a lot of time thinking about things that don't help them get to the right answer or don't help them get to the right answer as efficiently as they could.

Even if you are having trouble finishing a section 35 minutes, you want to give yourself a fair shot with every single question. That means, at the least, reading the question stem, reading the stimulus, and reading enough of the answer choices to select one.

If you are having trouble finishing the section, and you are nearing your exam, the best way to cut your time is to spend less time on the most difficult questions. Depending on your specific timing issues, pick a certain number of questions (say, 3 or 5 questions) for which you know, going in, that you are going to spend 20 to 30 seconds tops, then select the answer you think is best. By short-changing these questions, hopefully you can give yourself a fair shot at all of the rest.

Of course, you will be most successful implementing this strategy if you are good at knowing which questions to cut bait on. The charts on pages 386 and 387 should give you some indication, and I'm sure that by this point you've developed a strong internal sense for which questions happen to give you the least return for time invested. Again, do what you can to not waste time on the questions you are most likely to miss anyway, and make sure to give yourself enough time to get the questions right that you need to get right.

If, at the end of your preparation, you are still having some trouble finishing the section in 35 minutes...

If your timing issues arise from having difficulty with certain problem types, it's best to continue doing focused work on those question types—that means reviewing lessons related to those questions and doing drill sets of just that question type. You can use the question breakdown on the Trainer website to make them yourself, or purchase questions that are already separated by type.

One final thing you may find useful is to go through this book and try solving all of the questions from the *process in action* examples. Solve the questions, read my solutions, and compare your process to mine. One thing to keep in mind is that the thoughts represented in the solution are not some distilled version of my thought process—they accurately represent what I think about during a problem (presented with a bit more clarity, of course). Think about all the extra things you may have focused on during your process, and think about why those thought processes weren't necessary. Additionally, I expect you'll find that there are times you are more efficient than I am—maybe you have a faster way to eliminate a certain wrong answer or confirm a right one. Take note of these situations, as well.

Your Next Steps

If you are following one of the recommended study schedules, your final Logical Reasoning preparation will center on full sections and practice exams. Just as with Reading Comprehension, you'll want to use this final work to polish and round out your skill set and, most importantly, to solidify effective habits. Here are some recommendations:

One: Before Each Exam, Remind Yourself of Key Factors

Notes might include "focus on the argument," "be critical," "only eliminate when I'm certain," and so on. Think of a few things you need to remind yourself of, put them on a note card, and review the note card before the practice exam.

Two: During the Exam, Keep Track of Certain Markers

The instructions in your study schedule have more specific details, but in general it can be helpful for you to keep track of the following as you take your exam:

(A) The amount of time each set of five takes
(B) The questions for which you were not certain of your answer
(C) The questions on which you felt you spent a lot of time

You can keep track of (A) by marking the time at which you finish every fifth question. You can keep track of (B) by circling those questions. And you can choose to notate (C) in some other way (such as stars).

As with the other sections, if you'd like to track your timing for each question, have an easy means to do so, and don't think it will be a distraction, absolutely go ahead—you will certainly find the information useful. If you think tracking time with every question will be any sort of distraction, don't worry about it.

One thing you definitely do want to keep track of are questions where you realize you've

spent a lot of time. Even if that time results in a correct answer, you want to carefully review the processes you used for such questions. Speaking of which…

Three: Review Your Work Carefully

At this point in your process, it's probably not necessary for you to carefully review every single problem you do in each exam. Rather, you want to focus on the questions on which you clearly could have done better. These include

- The easier question that took longer than it should have
- The question you thought was tough and either got right or missed
- The hard question you got right that took way too long
- The question you thought you got right but missed

Each of these can be useful in helping you figure out which skills and habits need some final tweaking. The easy question that should take thirty seconds but actually takes you a minute and a half can hint at issues in your process that might make it so that the next time you see a harder version of that question, not only do you spend more time than you should, you end up missing it.

The questions to which you want to pay the most attention are those that you thought you got right but missed. Think of these as the ones you missed the most. Review the reasoning underlying the questions, review your process, and make sure you know exactly why you got duped. At the end of Lessons 7 and 8, I discussed reviewing your work in greater detail—if you've forgotten some of those suggestions, you may want to take another look at them now.

Additionally, remember to think about your misses as a whole and to look for patterns in them. Are your misses due more to the type of question or the difficulty of the question? Is there a relationship between the types of questions you miss most often? Why are you great at Flaw questions but have trouble with Match the Flaw questions? Or how come you are great at Match the Flaw but struggle with Match the Reasoning? At this point, I trust that you have the wisdom necessary to spot these patterns and to evaluate what they mean about your strengths and weaknesses.

As always, set goals for each exam. Don't expect a straight slope up the score ladder, but do expect significant progress over time, and push yourself to go a bit faster and to miss fewer questions with each new section or test that you try.

Final Final Thoughts

You've reached the end of the book.

Can you believe it? You are finally DONE with this thing!

First of all, congratulations. I know that it takes a lot of effort to get through this book, and I have no doubt that you are in much better shape to conquer the LSAT because of the hard work you've put in.

All the way back in Lesson 1, I laid out my very cheesy secret for success: the best way to ensure success is to deserve it.

It's a statement I absolutely believe in. Not just because I want to believe in it but because I've seen it to be true again and again and again. The best doctors tend to be the people who are most passionate about helping others and perfecting their craft, and the best hardware store owners are the ones who are most passionate about tools and serving their customers to the best of their abilities. The top LSAT scorers are the ones who are most passionate about reaching their goals, and perhaps even more importantly, they are the ones who have the greatest capacity to work toward those goals.

By doing all of the work in this book, and all of the listed work on your schedule outside of this book, and by finishing your final practice exams, which *I am certain you will do*, you've proved yourself most deserving of success.

Now it's time to go get it.