GAME 3 | PT 31, GAME 3, QUESTIONS 14 – 18

During a single week, from Monday through Friday, tours will be conducted of a company's three divisions—Operations, Production, Sales. Exactly five tours will be conducted that week, one each day. The schedule of tours for the week must conform to the following restrictions:
Each division is toured at least once.
The Operations division is not toured on Monday.
The Production division is not toured on Wednesday.
The Sales division is toured on two consecutive days, and on no other days.
If the Operations division is toured on Thursday, then the Production division is toured on Friday.

14. Which one of the following CANNOT be true of the week's tour schedule?

(A) The division that is toured on Monday is also toured on Tuesday.
(B) The division that is toured on Monday is also toured on Friday.
(C) The division that is toured on Tuesday is also toured on Thursday.
(D) The division that is toured on Wednesday is also toured on Friday.
(E) The division that is toured on Thursday is also toured on Friday.

15. If in addition to the Sales division one other division is toured on two consecutive days, then it could be true of the week's tour schedule both that the

(A) Production division is toured on Monday and that the Operations division is toured on Thursday
(B) Production division is toured on Tuesday and that the Sales division is toured on Wednesday
(C) Operations division is toured on Tuesday and that the Production division is toured on Friday
(D) Sales division is toured on Monday and that the Operations division is toured on Friday
(E) Sales division is toured on Wednesday and that the Production division is toured on Friday

16. If in the week's tour schedule the division that is toured on Tuesday is also toured on Friday, then for which one of the following days must a tour of the Production division be scheduled?

(A) Monday
(B) Tuesday
(C) Wednesday
(D) Thursday
(E) Friday

17. If in the week's tour schedule the division that is toured on Monday is not the division that is toured on Tuesday, then which one of the following could be true of the week's schedule?

(A) A tour of the Sales division is scheduled for some day earlier in the week than is any tour of the Production division.
(B) A tour of the Operations division is scheduled for some day earlier in the week than is any tour of the Production division.
(C) The Sales division is toured on Monday.
(D) The Production division is toured on Tuesday.
(E) The Operations division is toured on Wednesday.

18. If in the week's tour schedule the division that is toured on Tuesday is also toured on Wednesday, then which one of the following must be true of the week's tour schedule?

(A) The Production division is toured on Monday.
(B) The Operations division is toured on Tuesday.
(C) The Sales division is toured on Wednesday.
(D) The Sales division is toured on Thursday.
(E) The Production division is toured on Friday.

GAME 4 | PT 33, GAME 2, QUESTIONS 6 – 12

Bird-watchers explore a forest to see which of the following six kinds of birds—grosbeak, harrier, jay, martin, shrike, wren—it contains. The findings are consistent with the following conditions:

If harriers are in the forest, then grosbeaks are not.
If jays, martins, or both are in the forest, then so are harriers.
If wrens are in the forest, then so are grosbeaks.
If jays are not in the forest, then shrikes are.

6. Which one of the following could be a complete and accurate list of the birds NOT in the forest?

(A) jays, shrikes
(B) harriers, grosbeaks
(C) grosbeaks, jays, martins
(D) grosbeaks, martins, shrikes, wrens
(E) martins, shrikes

7. If both martins and harriers are in the forest, then which one of the following must be true?

(A) Shrikes are the only other birds in the forest.
(B) Jays are the only other birds in the forest.
(C) The forest contains neither jays nor shrikes.
(D) There are at least two other kinds of birds in the forest.
(E) There are at most two other kinds of birds in the forest.

8. If jays are not in the forest, then which one of the following must be false?

(A) Martins are in the forest.
(B) Harriers are in the forest.
(C) Neither martins nor harriers are in the forest.
(D) Neither martins nor shrikes are in the forest.
(E) Harriers and shrikes are the only birds in the forest.

9. Which one of the following is the maximum number of the six kinds of birds the forest could contain?

(A) two
(B) three
(C) four
(D) five
(E) six

10. Which one of the following pairs of birds CANNOT be among those birds contained in the forest?

(A) jays, wrens
(B) jays, shrikes
(C) shrikes, wrens
(D) jays, martins
(E) shrikes, martins

11. If grosbeaks are in the forest, then which one of the following must be true?

(A) Shrikes are in the forest.
(B) Wrens are in the forest.
(C) The forest contains both wrens and shrikes.
(D) At most two kinds of birds are in the forest.
(E) At least three kinds of birds are in the forest.

12. Suppose the condition is added that if shrikes are in the forest, then harriers are not. If all other conditions remain in effect, then which one of the following could be true?

(A) The forest contains both jays and shrikes.
(B) The forest contains both wrens and shrikes.
(C) The forest contains both martins and shrikes.
(D) Jays are not in the forest, whereas martins are.
(E) Only two of the six kinds of birds are not in the forest.

How Did You Do?

For many of you, that was your first time handling a full set of games and questions. How did you do? Of course, you'll need to check the answers to be certain, but I'm sure you have a pretty good sense of your general outcome. Logic Games questions are different from Logical Reasoning and Reading Comprehension questions in that there really is no gray area for answer choices—if you've solved a Logic Games question correctly, you'll never have to choose between two attractive answer choices, as you might in a Strengthen Logical Reasoning question. If you've done your work correctly, you should be able to see, for every question, that one answer is definitely right, or four answers are definitely wrong. Thus, even though everyone makes an unexpected mistake here or there, once you get to a high level of mastery, you should not have to check the solutions to see how you've done—you'll have a clear sense of which questions you got right for sure, and which questions you didn't.

Let's think about the four games that you just solved, and let's think about them in terms of the very specific skills that were necessary for success. A list of such skills is provided in the table below. For each game, think carefully about how well you performed at that skill challenge, and give yourself a subjective 1 – 5 score on your performance. Taking a look at how you perform various tasks across the range of games can help you develop a more accurate sense of your overall abilities. And checking your sense of your own skill set versus the solutions, which will start on the next page, will also help you get a more accurate sense of your abilities.

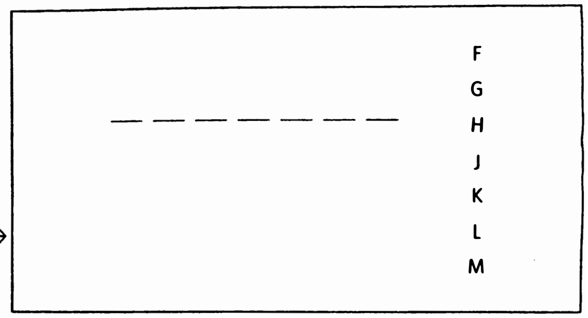
Go ahead and assess your performance on each game by giving yourself a 1 – 5 score on each of the general skill sets that are required of you. You can revisit this chart to reassess after looking at the solutions.

GENERAL SKILL	Game 1	Game 2	Game 3	Game 4	Total / Thoughts
I felt comfortable picturing the general design of the game					/20
I felt comfortable notating rules					/20
I felt good about seeing the inferences that exist					/20
I understood how to approach questions					/20
The work I had to do in the questions went smoothly					/20
TOTAL	/20	/20	/20	/20	

Game One Solution | PT 27, GAME 1, QUESTIONS 1 - 5

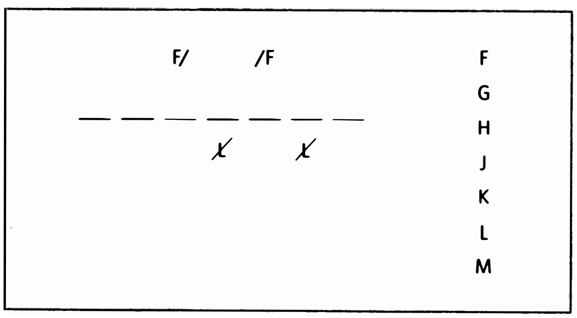
Let's take a step-by-step look at how a top scorer might solve this game. There are a variety of solutions that can be effective, and yours is certainly not wrong because it is different from the one below. Still, you can use this diagram and solutions to think about your own process.

> During a period of seven consecutive days—from day 1 through day 7—seven investors—Fennelly, Gupta, Hall, Jones, Knight, López, and Moss—will each view a building site exactly once. Each day exactly one investor will view the site. The investors must view the site in accordance with the following conditions:
>
> Fennelly views the site on day 3 or else day 5.
> López views the site on neither day 4 nor day 6.
> If Jones views the site on day 1, Hall views the site on day 2.
> If Knight views the site on day 4, López views the site on day 5.
> Gupta views the site on the day after the day on which Hall views the site.

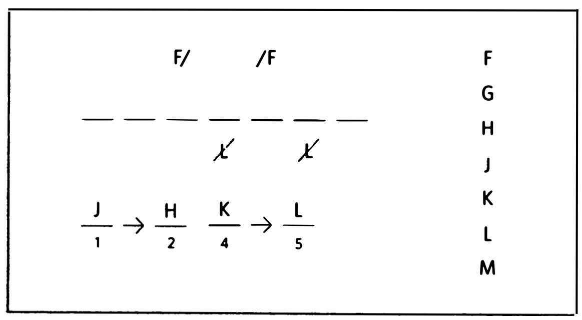


Start by taking a general assessment of the game: it's a straightforward ordering game with seven elements for seven positions—there is nothing unusual we have to consider. There also doesn't seem to be any one rule, or combination of rules, that is markedly more significant than the others.

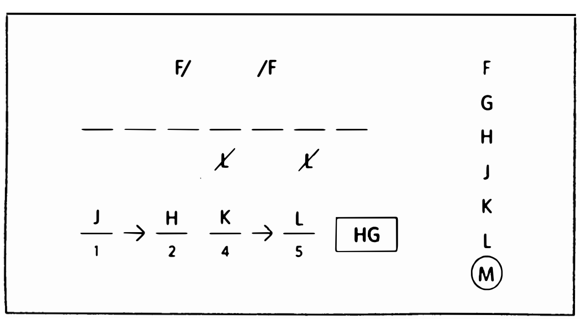
So, we can just start as we commonly do: by drawing seven positions and listing the seven elements. Looking ahead, we've got a couple of rules about assignment, a couple of conditional rules, and an ordering rule—all fairly typical.



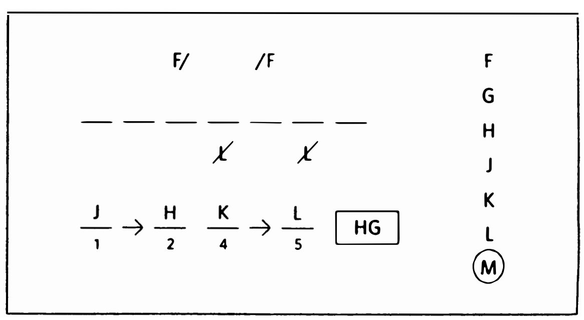
We can draw the first two rules above and below our diagram. The notations are close enough so that we won't forget about them when we look at our picture, but we want to keep the positions open so we better imagine various other elements filling them.



We want to notate conditional rules below or beside our diagram. If you'd like you can write down the contrapositives (If H is not in 2, J is not in 1, and if L is not in 5, K is not in 4) as well. I choose not to because, for me, this conditional felt basic enough so that I can easily think about and remind myself about the contrapositive just using my original notation.



Now we write in the final rule, which, though it only involves two elements, is probably our most useful. I just put a box around it to notice it more, but that's of course optional. We want to notice any elements that didn't get mentioned in the rules, and in this case, since M is not mentioned, we want to circle it to remind ourselves it can go anywhere.



We take one last look at the diagram—no significant inferences to be made, but it's easy enough to see the relationship between rules. Take a second playing with potential inference chains (What happens if J is in 1?) if you'd like. We double-check each notation against the wording, and now let's go into the questions.

1. Which one of the following could be the order in which the investors view the site, from day 1 through day 7?

~~(A)~~ Hall, Gupta, Fennelly, Moss, Knight, López, Jones
~~(B)~~ Hall, Gupta, López, Fennelly, Moss, Knight, Jones
~~(C)~~ López, Gupta, Hall, Moss, Fennelly, Jones, Knight
~~(D)~~ López, Jones, Fennelly, Knight, Hall Gupta, Moss
(E) López, Jones, Knight, Moss, Fennelly, Hall, Gupta

This is a standard Rules question—notice it comes first and we are asked for one order that could work—we want to use the rules to eliminate answers. The first rule eliminates (B). The second (A). The fourth rule (D). The fifth rule (C). (E) is therefore the correct answer. If you'd like, you can confirm it by testing each rule against it.

2. If Jones views the site on day 1, which one of the following investors must view the site on day 4?

(A) Fennelly
(B) Gupta
(C) Knight
(D) López
(E) Moss

J H G __ F __ __ __

~~K~~

~~L~~

We know, per the way the question is asked, that placing J in 1 will lead us on a chain of inferences that eventually tells us what to place in 4. For this type of question, we should absolutely expect to know the right answer before looking at the answer choices. If J is in 1, H must be in 2, and so G must be in 3. That forces F into 5. That means K can't be in 4, and we already know that L can't be in 4. That leaves M as our only option. Notice how helpful it is here to be mindful of M being a free agent. (E) is correct.

3. If Knight views the site on day 4 and Moss views the site on some day after the day on which Jones views the site, which one of the following must be true?

(A) Jones views the site on day 1.
(B) Jones views the site on day 2.
(C) Jones views the site on day 6.
(D) Moss views the site on day 2.
(E) Moss views the site on day 6.

H G F K L J M

J — M

This rule gives us two conditions—the first of which has a more direct impact. If K is in 4, L is in 5, and F must go in 3. That leaves only 1/2 or 6/7 for HG. We know that J must be before M, HG must go together, and that if J is first, H must be second. Per that last rule, we know J can't be first, and J also can't be second because we wouldn't have enough space for H,G, and M in 6/7. The only configuration that works is putting HG in 1/2, and J and M in 6 and 7. (C) is correct. Note that this is an extremely rare Must be True question in that we figure out where all elements go.

4. If Hall views the site on day 2, which one of the following is a complete and accurate list of investors any one of whom could be the investor who views the site on day 4?

(A) Knight
(B) Moss
(C) Jones, Moss
(D) Knight, Moss
(E) Jones, Knight, Moss

__ H G __ F __ __

~~K~~

~~L~~

If H is in 2, G is in 3, and F is in 5. Looking at the rules, that means K can't be in 4, and we also know that L can't be in 4. That leaves just J and M. Since we've already accounted for most of the rules, it's easy enough to mentally picture at least one way that J can work in the fourth position (M, H, G, J, F, K, L) and same with M in the fourth (J, H, G, M, F, K, L). (C) is correct.

5. If Hall views the site on the day after the day Knight views the site and if Fennelly views the site on the day after the day López views the site, then Jones must view the site on day

(A) 1
(B) 2
(C) 3
(D) 4
(E) 5

KHG LF

M L F J K G H

Let's start by notating the new information. If F is right after L, F must go in 3 and L in 2. That means KGH must go somewhere in 4-7, but K can't go in 4 without putting L in 5, so KGH must go 5-6-7. That leaves J and M for 1 and 4. However, if J goes in 1, H must go in 2, and we don't have that. Thus, J must go in 4. (D) is correct.

Game Two Solution | PT 32, GAME 2, QUESTIONS 7 - 11

Let's take a step-by-step look at how a top scorer might solve this game.

> The organizer of a reading club will select at least five and at most six works from a group of nine works. The group consists of three French novels, three Russian novels, two French plays, and one Russian play. The organizer's selection of works must conform to the following requirements:
>
> No more than four French works are selected.
> At least three but no more than four novels are selected.
> At least as many French novels as Russian novels are selected.
> If both French plays are selected, then the Russian play is not selected.

→

in	out
___	___
___	___
___	___
___	- - - ?
___	
? - - -	

Fn	Fn	Fn	Fp	Fp
Rn	Rn	Rn	Rp	

Right away we know this is not a "standard" game—we have an uncertain number of positions in each group, and we don't have individual elements—we have multiples. And we have subsets. Three of the four rules are about numbers—my general sense is that the challenge of the game will be in keeping track of disparate information, and that the game will be heavy on mathematical deductions.

I've taken a little more care than I normally would in notating the elements, because I know that keeping information about the separate groups clear will be important to solving questions. I've used a dashed line with a question mark for the sixth space—you can use whatever notation you'd like here—the key being that you understand the meaning easily.

in	out
___	___
___	___
___	___
___	- - - ?
___	
? - - -	

Fn	Fn	Fn	Fp	Fp
Rn	Rn	Rn	Rp	

not all 5 F's

I don't spot any rule or group of rules that stands out, so I just start with the first rule. The way that first rule is written doesn't help me much—it leaves me with 1 F, 2 F's, **3 F's, or 4 F's - too many options.** The other way to think about it is that there can't be all five F's, and that's the way I chose to write it.

in	out
_n	_n
_n	_n/p
_n	_p
_n/p	- _p ?
_p	
? - _p	

Fn	Fn	Fn	Fp	Fp
Rn	Rn	Rn	Rp	

not all 5 F's
3 or 4 n, 1-3 p

Moving on to the second rule, the math is messy here because it's 3 or 4 out of 5 or 6—if either of those numbers were fixed, the math would be much simpler. Anyway, we can make a small deduction about the number of P's in and out, and optionally, we can also write this information into our diagram.

in	out
Fn	_n
Fn	_n/p
_n	_p
_n/p	- _p ?
_p	
? - _p	

Fn	Fn	Fn	Fp	Fp
Rn	Rn	Rn	Rp	

not all 5 F's
3 or 4 n, 1-3 p
Fn ≥ Rn

Look at the list of rules we have listed: it's a disparate, tough group to work with. That's one of the reasons I've been trying to make small inferences and notations on the board at each point along the way. If there are more French novels than Russian, and a minimum of 3 novels, we know there must be at least 2 French novels.

in	out
Fn	_n
Fn	_n/p
_n	_p
_n/p	- _p ?
_p	
? - _p	

Fn	Fn	Fn	Fp	Fp
Rn	Rn	Rn	Rp	

not all 5 F's
3 or 4 n, 1-3 p
Fn ≥ Rn
Fp + Fp → ~~Rp~~
not all 3 plays

The last rule is a conditional. You choose to write in the contrapositive if you'd like: If Rp is in, at least one of the Fp's is out: (Rp → ~~Fp~~ or ~~Fp~~). An inference we can make here (and I think organizing the elements the way I did, and knowing that number inferences are important, helps us think of this) is that this means not all 3 plays are included.

ALTERNATIVES

This is an unusual game, and there are different ways that we could have effectively gone about trying to solve it.

In a typical game, we'd probably be given names for the books, and both French/Russian and novel/play would be subset issues. In this case it's like we have two subsets! There is no reason you have to decide here to make F and R the elements, and n and p the subsets. We could have also just as well written them as Nf, Nf, Nf, and so on. The reason I chose to go with what I did was the same reason I always use in such a situation—I went with what I thought works best with the rules.

If you haven't already, go ahead and think now about this: if there are either three or four novels chosen, and we can't have more Russian novels than French novels, what are all our options for the different numbers of each novel?

We have four: FnFnFn, FnFnRn, FnFnRnRn, FnFnFnRn. We could have used that, or perhaps some other numeric distribution, to lay out a set of diagrams that would have made answering the questions far simpler. If you thought of this or something else similar, and executed it well, bravo! You are well ahead of pace.

7. Which one of the following could be the organizer's selection of works?

(A) one French novel, two Russian novels, one French play, one Russian play
(B) two French novels, one Russian novel, two French plays one Russian play
(C) two French novels, two Russian novels, two French plays
(D) three French novels, one Russian novel, two French plays
(E) three French novels, two Russian novels, one Russian play

This is a standard Rules question, and we want to use the rules to eliminate incorrect answers. The first rule allows us to eliminate (D), the second (E), the third (A), and the fourth (B). The correct answer is (C).

8. Which one of the following could be true about the organizer's selection of works?

(A) No Russian novels are selected.
(B) Exactly one French novel is selected.
(C) All three plays are selected.
(D) All three Russian novels are selected.
(E) All five French works are selected.

When we are asked about something that could be true, typically the right answer is not something that jumps out at you—we know so little about the game at this point that almost anything could be true! What's more important is that four answers must be false, per what we know of the game. We want to focus on eliminating those. We don't know that (A) must be false, so let's leave it. We can quickly see that (B), (C), and (D) are incorrect per the inferences we made. (E) is incorrect per a rule we were given. (A) is the only answer remaining, and it is correct.

9. If the works selected include three French novels, which one of the following could be a complete and accurate list of the remaining works selected?

(A) one Russian novel
(B) two French plays
(C) one Russian novel, one Russian play
(D) one Russian novel, two French plays
(E) two Russian novels, one French play

We can redraw the diagram if need be, but let's try to take a more direct route and look for inferences—what do we know, per the rules, if all three French novels are selected? We know that either zero or one Russian novel is selected. We also know that the two French plays can't be selected. As with the last "could be" question, we want to knock off answers that can't be. We can easily eliminate (A) because it would leave us with 4 items. We can eliminate (B), (D), and (E) per the simple inferences we made. (C) is the only possible answer, and it is correct.

10. The organizer must at least select

(A) one French novel and one French play
(B) one French novel and one Russian play
(C) one Russian novel and one French play
(D) two French novels
(E) two Russian novels

When a question asks what must be true or false, it's generally a waste of time to focus on eliminating wrong choices (we'll discuss this in more depth in future lessons, but consider that in these cases, the wrong answers represents the "could be's," the information we know less about). We want to look for something that we know has to be true, and in this case we already know that (D) has to be true. We can select it and move on.

11. Any one of the following could be true about the organizer's selections of works EXCEPT:

(A) No Russian novels and exactly one play are selected.
(B) Exactly one Russian novel and both French plays are selected.
(C) Exactly two French novels and the Russian play are selected.
(D) Exactly two French novels and exactly two plays are selected.
(E) Exactly two Russian novels and exactly one play are selected.

We are being asked to identify an answer that must be false. As with the previous question, we don't want to spend a lot of time eliminating wrong choices—we want to search for an answer that looks like it just can't be right. (A) looks like that sort of suspicious answer—how will we fill all the spaces? Let's investigate. If no Russian novels are selected, the most novels that can be selected is 3. 3 + 1 = 4. (A) cannot be true, and (A) is correct. If you are confident in your work, you don't need to check the other answers.

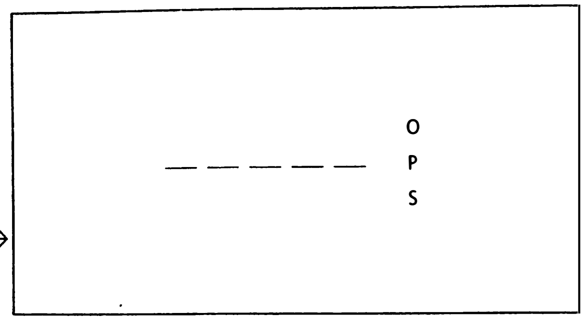
Game Three Solution | PT 31, GAME 3, QUESTIONS 14 - 18

Let's take a step-by-step look at how a top scorer might solve this game.

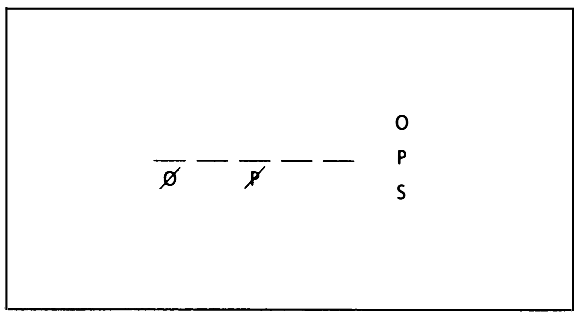
During a single week, from Monday through Friday, tours will be conducted of a company's three divisions—Operations, Production, Sales. Exactly five tours will be conducted that week, one each day. The schedule of tours for the week must conform to the following restrictions:

Each division is toured at least once.
The Operations division is not toured on Monday.
The Production division is not toured on Wednesday.
The Sales division is toured on two consecutive days, and on no other days.
If the Operations division is toured on Thursday, then the Production division is toured on Friday.

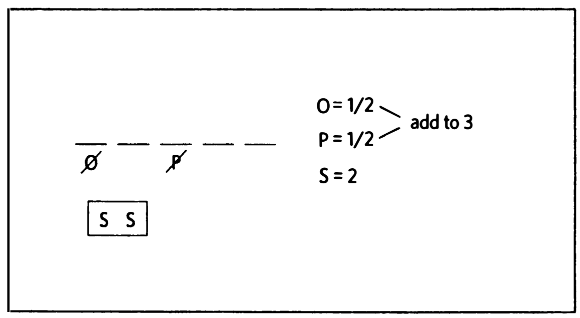
We start by taking a general assessment: this seems like a fairly straightforward game. We are ordering three elements into five positions, and some of these elements will be repeated. With that numbers mismatch, we need to be aware of the numeric inferences. The fact that there are only five positions makes me quite happy.



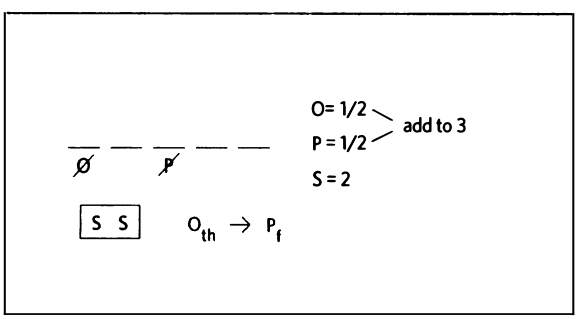
We can start out by drawing positions and listing elements. Again, I'm expecting that we will be given information about the number of each element. The first rule gives us a little information, but I don't write that in—it's not particularly valuable because it's our default expectation and chances are we'll know more about numbers before we're through.



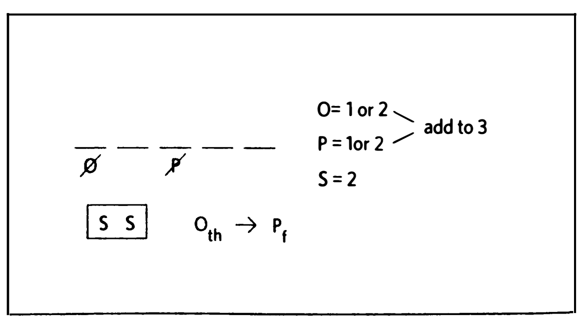
The next two rules are simple enough to notate.



The fourth rule gives us two important clues: we have a grouping of 2 S's that have to fit somewhere, and we have 2 S's total. That means we have either 1 of either O or of P, and 2 of the other. You can notate this any way you feel comfortable, even writing it out if you'd like.



The fourth rule is a conditional, and it's simple enough to understand and notate. I don't feel I need to write in the contrapositive here, because I feel that just looking at the rule I can infer that if P is not in Friday, O won't be in Thursday. But, it certainly doesn't hurt to write it in if you want. Be careful of using t for either Tuesday or Thursday.



I take one last look at the diagram. The game presents a fairly simple situation, and you should and need to feel solid control over it. Notice that this was the third game when it appeared on the LSAT. Recently, the third game has very commonly been the most difficult in a games section, and it will never be an easy game. So, I can expect that since the setup wasn't challenging, the questions very well might be.

14. Which one of the following CANNOT be true of the week's tour schedule?

(A) The division that is toured on Monday is also toured on Tuesday.
(B) The division that is toured on Monday is also toured on Friday.
(C) The division that is toured on Tuesday is also toured on Thursday.
(D) The division that is toured on Wednesday is also toured on Friday.
(E) The division that is toured on Thursday is also toured on Friday.

Notice that this game does NOT start with a Rules question. This question simply asks about a detail that cannot be true—Rules questions always ask us for a full set of assignments that could be true based on the rules given. It's very unusual for a game to start this way, and it's a sign we can be in for some unique questions. For this one, we are looking for an answer that must be false. We don't want to waste too much time on wrong answers—answers that seem like they could be true or false. Instead, we want to look for that one that we know can't be right. (C) is the correct answer. If Tue = Thurs, there is no place for SS.

15. If in addition to the Sales division one other division is toured on two consecutive days, then it could be true of the week's tour schedule both that the

(~~A~~) Production division is toured on Monday and that the Operations division is toured on Thursday
(B) Production division is toured on Tuesday and that the Sales division is toured on Wednesday
(~~C~~) Operations division is toured on Tuesday and that the Production division is toured on Friday
(~~D~~) Sales division is toured on Monday and that the Operations division is toured on Friday
(~~E~~) Sales division is toured on Wednesday and that the Production division is toured on Friday

Per the condition, we know that in addition to an SS, we have to have either an OO or a PP. There are too many different ways that this could play out to make much of a new diagram—instead, let's just work on eliminating wrong choices. (A) can't work because if either the P or O is repeated, there is no space for SS. (B) seems like it can work. Let's leave it. (C) can't work because O can't go in Mon. (D) can't work because the conditional rule would prevent a PP or an OO. (E) can't work for the same reason. That means (B) must be correct. We can confirm the answer by coming up with an option that works: PPSSO.

16. If in the week's tour schedule the division that is toured on Tuesday is also toured on Friday, then for which one of the following days must a tour of the Production division be scheduled?

(A) Monday
(B) Tuesday
(C) Wednesday
(D) Thursday
(E) Friday

__ __ S S __

If the same element goes in Tues and Friday, then SS must go in Weds and Thurs. Since O can't go on Mon, that leaves P as the only option. (A) is correct.

17. If in the week's tour schedule the division that is toured on Monday is not the division that is toured on Tuesday, then which one of the following could be true of the week's schedule?

(~~A~~) A tour of the Sales division is scheduled for some day earlier in the week than is any tour of the Production division.
(~~B~~) A tour of the Operations division is scheduled for some day earlier in the week than is any tour of the Production division.
(~~C~~) The Sales division is toured on Monday.
(~~D~~) The Production division is toured on Tuesday.
(E) The Operations division is toured on Wednesday.

P __ __ __ __
~~P~~

Coming off the last question, we can infer that if what goes into Mon is different from what goes into Tues, Mon must be P, and what goes in Tues must not be. This allows us to eliminate (A) - (D) as answers that must be false. (E) is correct.

18. If in the week's tour schedule the division that is toured on Tuesday is also toured on Wednesday, then which one of the following must be true of the week's tour schedule?

(A) The Production division is toured on Monday.
(B) The Operations division is toured on Tuesday.
(C) The Sales division is toured on Wednesday.
(D) The Sales division is toured on Thursday.
(E) The Production division is toured on Friday.

P S S __ __
P O O S S

The two ways in which Tues = Weds are if they are occupied by S and S, or O and O. Since I can't see the significance of that mentally, I go ahead and try both out (easy enough). In both instances, (P) must go into Mon. We find out little else. (A) is correct.

Game Four Solution | PT 33, GAME 2, QUESTIONS 6 – 12

Let's take a step-by-step look at how a top scorer might solve this game. This game, in particular, lends itself to a variety of effective setups and solution methods. Following this solution will be additional discussion about how you could have set up the game.

Bird-watchers explore a forest to see which of the following six kinds of birds—grosbeak, harrier, jay, martin, shrike, wren—it contains. The findings are consistent with the following conditions:

If harriers are in the forest, then grosbeaks are not.
If jays, martins, or both are in the forest, then so are harriers.
If wrens are in the forest, then so are grosbeaks.
If jays are not in the forest, then shrikes are.

$H \rightarrow \cancel{G}$
$G \rightarrow \cancel{H}$

in	out

G H J M S W

The scenario couldn't be much simpler: there are just six elements to place in or out. The challenge of this game, of course, comes in its rules. None of the rules give us any concrete information. They are all conditional, and in order to successfully solve questions we will need to see how these conditional rules come together. We can do some of the inference work up front (to be discussed) but I prefer to write the rules simply.

This entire game is built upon our understanding of conditional rules; it's imperative we understand each one correctly, and we want to go as slowly and carefully as we need to in order to ensure accuracy. Because we know this game is going to be all about bringing conditional rules together, we want to make sure to write out the contrapositive for each rule.

$H \rightarrow \cancel{G}$ $J \rightarrow H$
$G \rightarrow \cancel{H}$ $\cancel{H} \rightarrow \cancel{J}$
$M \rightarrow H$
$\cancel{H} \rightarrow \cancel{M}$

in	out

G H J M S W

The second rule is the most challenging rule to get right. What is guaranteed if J is in? H must be in. What if M is in? H must be in. Either J or M by itself can ensure that H is in—we can write this as a compound conditional, but I prefer to write it out separately so it's easier to keep track of. If you kept it in compound form, it would read "J or M $\rightarrow$H" and the contrapositive would be "$\cancel{H} \rightarrow \cancel{J}$ and $\cancel{M}$."

$H \rightarrow \cancel{G}$ $J \rightarrow H$
$G \rightarrow \cancel{H}$ $\cancel{H} \rightarrow \cancel{J}$
$W \rightarrow G$ $M \rightarrow H$
$\cancel{G} \rightarrow \cancel{W}$ $\cancel{H} \rightarrow \cancel{M}$
$\cancel{J} \rightarrow S$
$\cancel{S} \rightarrow J$

in	out

G H J M S W

The last two rules are simple enough, but do make sure to be as accurate as possible. There is never any need to rush through the rules, and careful work is critical here.

$H \rightarrow \cancel{G}$ $J \rightarrow H$
$G \rightarrow \cancel{H}$ $\cancel{H} \rightarrow \cancel{J}$
$W \rightarrow G$ $M \rightarrow H$
$\cancel{G} \rightarrow \cancel{W}$ $\cancel{H} \rightarrow \cancel{M}$
$\cancel{J} \rightarrow S$
$\cancel{S} \rightarrow J$

in	out

G H J M S W

At this point, we've got no part of the diagram filled in, and we have a bunch of intimidating-looking notations. The key to your success has already taken place: if you've written each rule correctly, the work to be done in the questions, though significant, is actually very straightforward. Let's dive into the questions.

6. Which one of the following could be a complete and accurate list of the birds NOT in the forest?

~~(A)~~ jays, shrikes
~~(B)~~ harriers, grosbeaks
~~(C)~~ grosbeaks, jays, martins
(D) grosbeaks, martins, shrikes, wrens
~~(E)~~ martins, shrikes

This is an extremely unusual sort of Rules question in that it asks which of the answers could be a list of elements NOT in the forest. Note that each answer also tells us exactly who is in the forest. In any case, we can still use the rules to eliminate choices (though in this case, because we have a lot of conditional language, it's easier to use the rules in notated form than in worded form. Per the way this question is written, the rules that tell us what happens when elements are *out* are more useful, so let's skip the first rule for now (unless you see a clear way to check it against the answers) and move on to the other rules. The second rule (which allows us to infer that if H is out, J has to be out) eliminates (B). The third (C). The fourth (E). We're down to (A) and (D). Does (A) work with the first rule? No it doesn't. (D) is correct.

7. If both martins and harriers are in the forest, then which one of the following must be true?

(A) Shrikes are the only other birds in the forest.
(B) Jays are the only other birds in the forest.
(C) The forest contains neither jays nor shrikes.
(D) There are at least two other kinds of birds in the forest.
(E) There are at most two other kinds of birds in the forest.

M H	G W

J S

For a conditional question such as this one, we want to use our rules to make inferences, and we can use a T-table to keep the information organized. If M and H are in, we know that G is out, and if G is out W is out. We don't know about either J or S. Per what we can infer, (E) is correct.

8. If jays are not in the forest, then which one of the following must be false?

(A) Martins are in the forest.
(B) Harriers are in the forest.
(C) Neither martins nor harriers are in the forest.
(D) Neither martins nor shrikes are in the forest.
(E) Harriers and shrikes are the only birds in the forest.

S	J

Looking at our conditionals, the only thing we know when J is not in the forest is that S must be in the forest. Fortunately, that's all we need. (D) must be false.

9. Which one of the following is the maximum number of the six kinds of birds the forest could contain?

(A) two
(B) three
(C) four
(D) five
(E) six

J M H S	G W

This is probably the most challenging question of the set. From the work we did on #7, we know that we can get 4 birds in. The question then becomes "can we get 5?" We want to look at the rules that force elements out, and when we do so, they tell us we can't have five. Either H or G has to be out, and when they are, they force others out. H forces out J and G forces out several elements. There is no way to only have one element out. (C) is correct.

10. Which one of the following pairs of birds CANNOT be among those birds contained in the forest?

(A) jays, wrens
(B) jays, shrikes
(C) shrikes, wrens
(D) jays, martins
(E) shrikes, martins

There is no concrete reason any one bird can't be in the forest. Note that what they are asking is which pair of birds cannot be in the forest at the same time. We need to infer from the elements in the answer choices in order to figure that out. Starting with (A), what do we know if J is in? If J is in, H is in. If H is in, G is out. If G is out, W is out. So, if J is in, W must be out. Jays and wrens can't be in the forest together, so (A) is the correct answer.

11. If grosbeaks are in the forest, then which one of the following must be true?

(A) Shrikes are in the forest.
(B) Wrens are in the forest.
(C) The forest contains both wrens and shrikes.
(D) At most two kinds of birds are in the forest.
(E) At least three kinds of birds are in the forest.

G S	H J M

W?

Again, we want to use our conditional rules to make inferences, and use our T-table to keep track. If G is in, H is out. If H is out, J and M are out. If J is out, S is in. The only element we don't know about is W. (A) is correct.

12. Suppose the condition is added that if shrikes are in the forest, then harriers are not. If all other conditions remain in effect, then which one of the following could be true?

(A) The forest contains both jays and shrikes.
(B) The forest contains both wrens and shrikes.
(C) The forest contains both martins and shrikes.
(D) Jays are not in the forest, whereas martins are.
(E) Only two of the six kinds of birds are not in the forest.

S → $\cancel{H}$ H → $\cancel{S}$

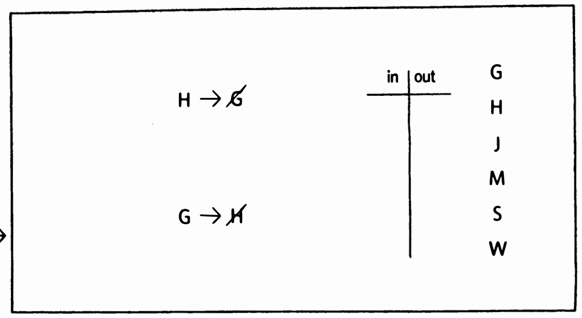
We want to write the new rule next to the question and combine it with the rules we already know in order to evaluate answers. We know the four wrong answers must be false. For (A), if S is in, H is out, and if H is out J is out. (A) must be false. For (B), we can't link what we know about W and S—let's leave it. For (C), if S is in, H is out. If H is out M is out. (C) must be false. (D) is tough to see, and you may want to make a T-table to evaluate it: J not being in forces S in. However, if M is in, H is in, and that forces S out. Since those two things can't be true at once, (D) must be false. We can work off of the work we did on #9 to think about (E). We know we could only get the maximum of four birds when H was in. Now that H forces S out, the max we can get would be 3. (E) must be false. (B) is correct.

Game Four Alternative Solution | PT 33, GAME 2, QUESTIONS 6 - 12

Let's take an in-depth look at a different way to think about and set up that last game. Please note that it's not necessary for you to learn these methods, and know that these are methods that are relevant for a small minority of games. It's also true that, for certain games, these strategies can give you a significant advantage, both in terms of how much faster, and how much easier, it makes it to answer questions.

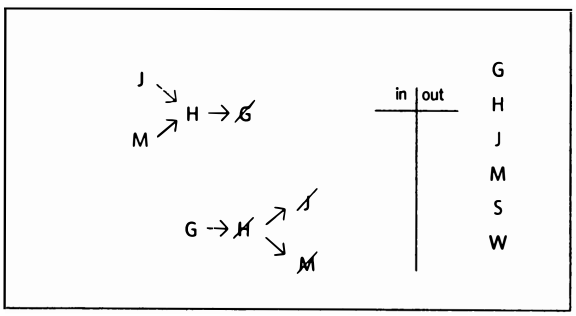
Bird-watchers explore a forest to see which of the following six kinds of birds—grosbeak, harrier, jay, martin, shrike, wren—it contains. The findings are consistent with the following conditions:

If harriers are in the forest, then grosbeaks are not.
If jays, martins, or both are in the forest, then so are harriers.
If wrens are in the forest, then so are grosbeaks.
If jays are not in the forest, then shrikes are.

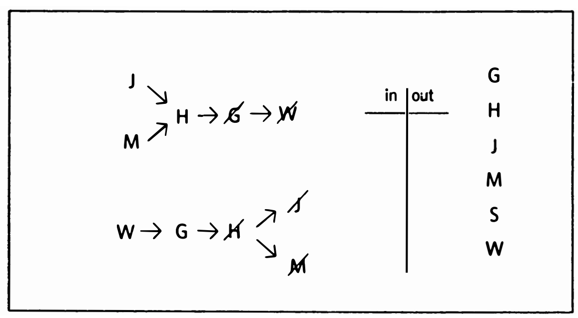


The scenario is simple enough; the most important thing to notice about this game is that all of the rules are conditional. As we've discussed, when games feature lots of conditional rules, it's likely that these rules will link up, and that you will be tested on your ability to link them up. Knowing all of that, we can choose to link the rules during our diagramming process.

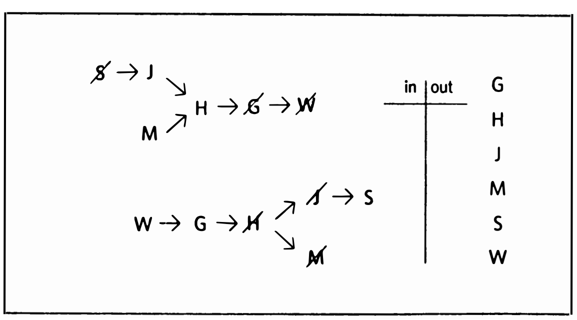
We'll start just as we did last time, by writing out the first conditional statement and its contrapositive. The only difference is that we want to leave plenty of space to build on to those conditional statements.



We want to add the second rule to the first one, and we can do so by linking on to the H. Notice how we handle the "or" scenario. We could have kept it as a compound statement, but splitting the rule up makes it easier to work with.



We can add the third rule and its contrapositive to the relevant chains. If the rule didn't link up we would skip it, then try to link it up later, or otherwise write it off separately.



And we'll add the last rule and its contrapositive to the chains. Notice that we now have a clear sense of the relationship between all elements—this will make the process of solving questions much quicker and easier. Not all games featuring conditional rules link up this neatly, but many of them will.

6. Which one of the following could be a complete and accurate list of the birds NOT in the forest?

(~~A~~) jays, shrikes
(~~B~~) harriers, grosbeaks
(~~C~~) grosbeaks, jays, martins
(D) grosbeaks, martins, shrikes, wrens
(~~E~~) martins, shrikes

We can use our two chains to see which answers cannot work. When J is out, we know S is in. (A) can't work. When H is out, we can see that J and M have to be out, so we can eliminate (B). When G is out, we can see W must be out, so we can eliminate (C). (D) doesn't violate any rules, so we can keep it for the moment. When S is out, G and W have to be out, so we can eliminate (E). (D) is correct.

7. If both martins and harriers are in the forest, then which one of the following must be true?

(A) Shrikes are the only other birds in the forest.
(B) Jays are the only other birds in the forest.
(C) The forest contains neither jays nor shrikes.
(D) There are at least two other kinds of birds in the forest.
(E) There are at most two other kinds of birds in the forest.

M H | G W

J S

We know, per the condition, that we are dealing with the first of our chains, and it's very easy to see which elements M and H being in tell us more about (G and W) and which elements it doesn't tell us anything about (S and J). With this information, we can see that (E) is the only answer that must be true.

8. If jays are not in the forest, then which one of the following must be false?

(A) Martins are in the forest.
(B) Harriers are in the forest.
(C) Neither martins nor harriers are in the forest.
(D) Neither martins nor shrikes are in the forest.
(E) Harriers and shrikes are the only birds in the forest.

S | J

J is not in the forest in the second chain, and the only thing we know from that is that S is in the forest. That gives us (D) as the correct answer.

9. Which one of the following is the maximum number of the six kinds of birds the forest could contain?

(A) two
(B) three
(C) four
(D) five
(E) six

J M H S | G W

This is still probably the most challenging question of the set, and our diagrams don't help us much here. From the work we did on #7, we know that we can get 4 birds in. The question then becomes "can we get 5?" We want to look at the rules that force elements out, and when we do so they tell us we can't have five. Either H or G has to be out, and when they are, they force others out. H forces out J and G forces out several elements. There is no way to only have one element out. (C) is correct.

10. Which one of the following pairs of birds CANNOT be among those birds contained in the forest?

(A) jays, wrens
(B) jays, shrikes
(C) shrikes, wrens
(D) jays, martins
(E) shrikes, martins

We can see in the first chain that when J is in, W is out. (A) is correct.

11. If grosbeaks are in the forest, then which one of the following must be true?

(A) Shrikes are in the forest.
(B) Wrens are in the forest.
(C) The forest contains both wrens and shrikes.
(D) At most two kinds of birds are in the forest.
(E) At least three kinds of birds are in the forest.

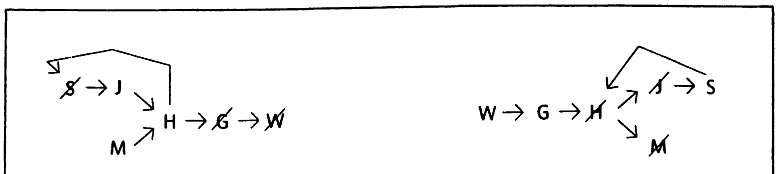
G S | H J M

W?

If G is in, we know we're dealing with the second chain, and we can infer everything to the right of the G. This allows us to see that (A) is correct.

12. Suppose the condition is added that if shrikes are in the forest, then harriers are not. If all other conditions remain in effect, then which one of the following could be true?

~~(A)~~ The forest contains both jays and shrikes.
(B) The forest contains both wrens and shrikes.
~~(C)~~ The forest contains both martins and shrikes.
~~(D)~~ Jays are not in the forest, whereas martins are.
~~(E)~~ Only two of the six kinds of birds are not in the forest. $S \rightarrow \cancel{H}$ $H \rightarrow \cancel{S}$



We can add the new information to our chains by drawing an arrow that loops back from H to S in the first chain, and from S to H in the second (see images to side). This makes it easier to evaluate answers. (A) can't work per the second chain. (C) can't work per the first chain. (D) can't work per the second chain. (E) is tougher to evaluate, but both chains do tell us that at least three have to be out. Since (A), (C), (D), and (E) all can't work, (B) is correct.

Timing Basics

Okay, now that you've seen some solutions, how did you do? At this point, you are not expected to be able to answer all questions for four games in thirty-five minutes. What is expected is that you feel you have a solid base of understanding about how games are designed, and that you are starting to develop strong diagramming habits. In the next swatch of Logic Games lessons, we'll continue to develop our diagramming skills, and turn our primary focus to the task of answering questions.

Let's talk briefly about general timing strategies for Logic Games. We'll discuss these strategies in greater depth in later lessons.

For the past several years, there has been a string of LSATs that have had Logic Games sections with twenty-three questions, and there is no sign that this trend will stop any time soon. Invariably, the trend will stop (as all such LSAT trends must), but when it does, expect to see twenty-two or twenty-four questions (the test does not change much from iteration to iteration). So, it's fairly safe to plan your timing strategies around the idea that you will likely see twenty-three questions (give or take one, in a unique case).

It just so happens that twenty-three questions works very cleanly for a balanced general timing strategy: take an average of 3 minutes to diagram each game (12 minutes total) and an average of 1 minute per question, and 12 + 23 = 35 exactly.

Of course, the reality is that games vary greatly in terms of difficulty, and it's likely that when you go into the exam, one game might take you six minutes, while another will take you eleven. Even when you work well and work efficiently, some diagrams might take four minutes while others take less than a minute, and some questions might take two minutes and others twenty seconds. Rigid timing strategies only serve to box you in and limit you unnecessarily—the key is to develop sophisticated strategies that allow you to bend and flow with the section.

For now, think of 3 minutes per setup, and 1 minute per question as very general benchmarks, and use them to think about which sorts of setups and questions take you longer than they should. Don't get overly excited when a setup or question takes you far less time, and don't stress when they take far more.

Think about your timing primarily in terms of process. If you are working on a direct path toward a solution, you are invariably using timing correctly, and if you habitualize a direct path to the answer, timing will be less of an issue—trust that you will get faster and faster at games as you get more of them under your belt. If your path to the answer is indirect, your pace likely won't make up for that.

One thing you definitely do not want to do at this point is panic and look for drastic measures to alter your timing. Focus on not wasting time on unnecessary steps, and trust that you will get much faster. Now is not the time to learn short-cuts or guessing strategies.

22 READING COMPREHENSION reasoning structure

The challenge of mastering Reading Comprehension is very different from the challenge of mastering Logical Reasoning or Logic Games. For those sections, in particular Logic Games, we need to train ourselves to be effective at a new type of mental exercise. We've done things somewhat similar to solving Logical Reasoning problems and Logic Games, but those sections are, generally speaking, relatively unique challenges for our minds to master.

Reading is reading. You are doing it right now, and most of us do it as naturally and intuitively as we breathe, walk, or drive. Though the specific challenges that Reading Comprehension *questions* present are relatively unique to standardized exams, the experience of reading passages is not—we've read passages about things our entire lives.

the challenge of Reading Comprehension is not to develop a new skill, but rather to channel a skill that we already have to best match the task at hand

The challenge of Reading Comprehension is therefore not to develop a new skill, but rather to channel a skill we already have to best match the task at hand. This is far more difficult to do than it may seem—because reading is something that happens so naturally for us, it takes a lot of work to actually change how we read—just like it would take a lot of work to change how we walk, or how we drive. In order to achieve success, it's imperative that you have a very clear sense of exactly which reading skills and what type of reading style are rewarded by the LSAT, and that you put in the time necessary to develop habits that best align with those characteristics. To that end, we will begin in these first two Reading Comprehension lessons, by breaking down exactly what you need to know about the narrow bandwidth of skills that LSAT Reading Comprehension tests, and by discussing general reading strategies that best align with the tasks we need to accomplish.

What Reading Comprehension Tests

For most of us, when we think about our reading ability, it's similar to thinking about our athletic ability, or our ability to make friends—we have a general sense, but we also know that our talents are very situation-specific (most of us are better at certain sports than others, for example), and multi-faceted. An ability to read well has numerous factors, and it's completely subjective how one prioritizes these factors—that is, it's tough to define what reading ability is as a whole, and it's impossible to rate or rank people based on reading ability as a whole.

All of this is true, but there is another truth that is far more significant to your LSAT performance: LSAT Reading Comprehension is not designed to test general reading abilities, and it is not made easier or more difficult in vague or inexplicable ways. The LSAT Reading Comprehension test writers have very specific jobs to do, in the same way that a test writer of sentence correction questions or algebra questions does. LSAT Reading Comprehension is designed to test very *specific* reading skills, and it is these specific reading skills that form the backbone of all the questions that are asked, and it is these specific skills that are most directly tested when certain passages or questions become too difficult. Furthermore, you could argue that most of the section is designed to test just one specific skill: your ability to read for reasoning structure.

LSAT Reading Comprehension is designed to test very specific reading skills, and it is these specific reading skills that form the backbone of all questions that are asked

Broadly speaking, the reasoning structure of a passage refers to the roles that parts of a passage are meant to play relative to one another. LSAT reading passages are designed to have main points, reasoning given to support and oppose those main points, and background information necessary to understand the situation. If you are consistently able to organize and retain passages in terms of these roles—if you are able to easily understand why an author has written the various things he has written—then you will have a high level of success on LSAT Reading Comprehension.

Questions will test your understanding of the passage as a whole, your understanding of certain paragraphs, and your understanding of sentences or phrases. We will go into great detail about each type of question in future lessons, but keep in mind that there is great commonality among the various question types—the vast majority of them are designed to gauge your ability to read for structure. General questions and those that ask about the author's opinion will test this understanding most directly. Even specific questions—those that ask you to gauge the significance or meaning of a single sentence or phrase, are typically dependent on general structural understanding—the key to understanding specific details is to understand what role they play relative to the passage as a whole, and this understanding will be what commonly allows you to differentiate between right and wrong answers.

In a couple of pages will be an LSAT passage, broken down to illustrate some of the components mentioned above. This passage will have reasoning structure that is very common to the LSAT: we will be given two main points meant to oppose one another, and the reasons that support and oppose these points. It is likely that at least two, and most likely at least three, of the four passages that you see on the LSAT will have this general argument structure. Others passages can have just one main point, or even three or four.

I've also included two of the questions that came with the passage (most passages will come with between five and eight questions). These questions illustrate the significance of understanding reasoning structure.

Make sure the breakdown of the passage and questions makes perfect sense to you before moving on. For some of you, it will match very closely how you might naturally think of a reading assignment. For others, it will be very different from how you thought you'd be thinking about LSAT Reading Comprehension. Nevertheless, structural analysis will form the backbone of everything we discuss when it comes to Reading Comprehension.

Reading Comprehension Does Not Test

Before we move further, let's lay out a few common misconceptions about Reading Comprehension in order to help make sure they do not hinder you in developing your ow mastery. LSAT Reading Comprehension is **not** designed to test...

One: Your Ability To Retain a Lot of Information

Try to focus on the forest, rather than the trees. Successful reading requires a certain level of comfort with uncertainty (an ability to withhold judgement), as well as an ability to prioritize what is most important. Students who over-retain and want to understand everything, often before they have the context to accurately do so, end up misreading and misunderstanding. Certain questions will ask you about details, but you can focus on those details just when you need to. LSAT Reading Comprehension rewards those who focus on accurately seeing the big picture.

Two: Knowledge of Unusual Subjects and Words

Many of these passages will be about things you know little about, and many of them will involve complicated wording that is unfamiliar to you. Your lack of understanding is not a detriment—it is a function of the design of the test. So, when you run into an impossibly complex science topic, or some strange, archaic word you don't understand the meaning of, don't see that as a negative and don't try to pretend to know what you don't. Instead, focus on overall reasoning structure, and try to use the reasoning relationships to understand what you can about these unfamiliar subjects and words.

Three: Your Critical Reasoning Ability

Reading Comprehension passages, like Logical Reasoning arguments, are centered around arguments and the reasoning given in relation to those arguments. The way we read and organize Reading Comprehension is very similar to how we read and organize Logical Reasoning, and you can think of your Reading Comprehension strategies as being natural adaptations of Logical Reasoning strategies.

Here's the difference (and it's a big one): for Logical Reasoning, reading for reasoning structure is a means to an end—that is, we need to see the structure in order to perform another, even more important task, which is to be critical of how the reasoning is meant to support a conclusion. For Reading Comprehension, reading for reasoning structure is pretty much the end game—the questions will all hinge on your ability to see structure. Very few questions—two or three per section at most—require critical reasoning, and the vast majority of questions will reward a strongly objective understanding. So, you want to focus on seeing the reasoning structure inherent in the passage, but you want to make sure you don't distract yourself by forming some opinion about it.

Reading for Reasoning Structure

This paragraph gives us background information about the situation at hand. It is unnecessary to attempt to retain all of the details and statistics—the most important thing to note is that dolphins suddenly died. We can anticipate that the passage will likely present a couple of hypotheses about how or why this happened.

Between June 1987 and May 1988, the bodies of at least 740 bottlenose dolphins out of a total coastal population of 3,000 to 5,000 washed ashore on the Atlantic coast of the United States. Since some of the dead animals never washed ashore, the overall disaster was presumably worse; perhaps 50 percent of the population died. A dolphin die-off of this character and magnitude had never before been observed; furthermore, the dolphins exhibited a startling range of symptoms. The research team that examined the die-off noted the presence of both skin lesions and internal lesions in the liver, lung, pancreas, and heart, which suggested a massive opportunistic bacterial infection of already weakened animals.

Again, we also don't need to concern ourselves with trying to master or retain the specifics being discussed. We know the purpose of this paragraph—to act as background for some sort of hypothesis to come, and as long as we understand the reasoning structure we are going to be okay.

Tissues from the stricken dolphins were analyzed for a variety of toxins. Brevetoxin, a toxin produced by the blooming of the alga Ptychodiscus brevis, was present in eight out of seventeen dolphins tested. Tests for synthetic pollutants revealed that polychlorinated biphenyls (PCBs) were present in almost all animals tested.

Here we get our first main point—a hypothesis for what killed the dolphins, which we've bolded. The rest of the paragraph functions to explain and justify this hypothesis.

The research team concluded that brevetoxin poisoning was the most likely cause of the illnesses that killed the dolphins. Although P. brevis is ordinarily not found along the Atlantic coast, an unusual bloom of this organism—such blooms are called "red tides" because of the reddish color imparted by the blooming algae—did occur in the middle of the affected coastline in October 1987. These researchers believe the toxin accumulated in the tissue of fish and then was ingested by dolphins that preyed on them. The emaciated appearance of many dolphins indicated that they were metabolizing their blubber reserves, thereby reducing their buoyancy and insulation (and adding to overall stress) as well as releasing stores of previously accumulated synthetic pollutants, such as PCBs, which further exacerbated their condition. The combined impact made the dolphins vulnerable to opportunistic bacterial infection, the ultimate cause of death.

Now we counter that opinion, and it's clear the author's view is that the first opinion is "not entirely plausible." The next three sentences provide evidence that goes against the first opinion. Then we get our second hypothesis: a sudden influx of pollutants was the cause. The final sentence confirms that the author is clearly on the side of the second opinion.

For several reasons, however, this explanation is not entirely plausible. First, bottlenose dolphins and P. brevis red tides are both common in the Gulf of Mexico, yet no dolphin die-off of a similar magnitude has been noted there. Second, dolphins began dying in June, hundreds of miles north of and some months earlier than the October red tide bloom. Finally, the specific effects of brevetoxin on dolphins are unknown, whereas PCB poisoning is known to impair functioning of the immune system and liver and to cause skin lesions; all of these problems were observed in the diseased animals. **An alternative hypothesis, which accounts for these facts, is that a sudden influx of pollutants, perhaps from offshore dumping, triggered a cascade of disorders in animals whose systems were already heavily laden with pollutants.** Although brevetoxin may have been a contributing factor, the event that actually precipitated the die-off was a sharp increase in the dolphins' exposure to synthetic pollutants.

Practice Test 26, Passage 3

Answering Questions

Questions will ask about the author's purpose, the structure of the passage, or the role that a particular component plays in the passage. Let's take a look at two of the six questions that were asked about this passage, and discuss the role that reasoning structure plays.

14. The passage is primarily concerned with assessing

(A) the effects of a devastating bacterial infection in Atlantic coast bottlenose dolphins
(B) the process by which illnesses in Atlantic coast bottlenose dolphins were correctly diagnosed
(C) the weaknesses in the research methodology used to explore the dolphin die-off
(D) possible alternative explanations for the massive dolphin die-off
(E) relative effects of various marine pollutants on dolphin mortality

Note that all of the answer choices are fairly decent matches for the subject matter discussed—if you were primarily focused on the subjects that were discussed, rather than the reasoning structure, the wrong answers might seem a bit more attractive. However, when we look at the answers in terms of the reasoning structure we discussed, right and wrong become a bit more obvious. (A) is discussed but it is not the primary reason everything was written. (B) is actually an incorrect representation of the passage—the author does not think the diagnosis was correct, and regardless, (B) does not reflect the overall structure of the passage. (C) doesn't represent the passage correctly—methodology is not discussed. More importantly, however, we know this is not the primary concern of the passage. **(D) is the correct answer**—the passage is concerned with assessing different explanations for the die-off. (E) is tempting, but not a specific enough match for the specific scenario being discussed in this argument.

20. The author refers to dolphins in the Gulf of Mexico in the last paragraph in order to

(A) refute the assertion that dolphins tend not to inhabit areas where P. brevis is common
(B) compare the effects of synthetic pollutants on these dolphins and on Atlantic coast dolphins
(C) cast doubt on the belief that P. brevis contributes substantially to dolphin die-offs
(D) illustrate the fact that dolphins in relatively pollution-free waters are healthier than dolphins in polluted waters.
(E) provide evidence for the argument that P. brevis was probably responsible for the dolphins' deaths

This question is about a specific detail in the passage, but note the way the question is being asked—it's requiring us to think about the role that the detail plays in a larger context—in the context of a passage as a whole. We know that these dolphins in the Gulf of Mexico are mentioned to counter the idea that P. brevis red tides are primarily responsible for the die-off. This allows us to quickly see that such answers as (A), (B), and (D) are not a good match. (E) is tempting, but is actually the exact opposite of the truth. **(C), the correct answer,** represents the role the component plays relative to the passage as a whole.

THE ELEMENTS OF REASONING STRUCTURE

Main Points

Main points in Reading Comprehension passages are, in most ways, very similar to what we think of as the "conclusions" of Logical Reasoning arguments. They are *why the passage is written*, and the other parts of a passage can be thought of in terms of their relation to the main points. Here's how they are different from Logical Reasoning conclusions:

1) I'm sure you've noticed the use of the plural—main *points*. Whereas almost all Logical Reasoning problems are designed to have one main point, Reading Comprehension passages are not. They may have one, two, or three. Most commonly, passages will have two somewhat contrasting main points.

2) These main points need not be as subjective as the Logical Reasoning conclusions we've gotten used to. Logical Reasoning questions are designed to test our ability to recognize faults in reasoning, and so they naturally have to get to conclusions that can be viewed as being wrong. Reading Comprehension is not about recognizing fault. Rather, it's simply about seeing that underlying reasoning structure inherent in the passage. Therefore, something like "cheetahs rely on their speed to capture prey," something most of us understand objectively to be true, could be the one main point of a Reading passage, and the rest of the passage can simply contain more information about how and why this is true.

Author's View

More often than not, the author has a specific opinion about the main points, and every passage will ask questions related to the author's opinion. Though a solid minority of passages are objective, your default mindset as you read should involve thinking to yourself, "Why did the author write this?" If you read every passage with this as a focus, pretty soon, taking note of the author's opinion will become second nature. For many passages, the author's opinion is obvious—it may even be one of the main points, or the main point, of the entire passage. Other times, it'll be far more subtle, and you'll have to glean it based on just a few choice words or phrases. We'll practice and discuss all such varieties in the lessons to come.

Reasons For and Against

For a majority of passages, the bulk of the text will be information meant to support or oppose these main points, and for these parts of the passage, the most important thing for you to understand is simply the fact that these parts support or oppose particular main points. When you are presented with two main points that contrast one another (coffee is healthy versus coffee is unhealthy, for example), opposition for one point can work as support for the other, and vice-versa.

Information and Application

Other parts of a passage can also give additional information about the main points, or discuss the application—that is, the result or usage—of one of the main points (imagine a passage that discusses advantages of certain diets, and then discusses what happened to one person after changing to one of the two diets discussed). This form of application very commonly comes at the end of a passage, and it commonly comes after the author has cast her vote with one of two contrasting opinions.

Background

Everything that doesn't play a reasoning role in relation to a main point can be thought of as background information. Background information simply gives us a context for the more important components of the reasoning structure. You certainly want to understand background information to the best of your ability, but it should not be the main focus of your read.

Instructions for the drill starting on the next page: Read each passage two times. The first time through, search only for **main points** and clues as to the **author's views**, and mark the parts where you are certain that you see them. Check against the solutions if you aren't sure of yourself. The second read-through, note the roles that other parts of the passage play. Write **"b.g."** next to background information, and also note what parts of the passage are meant to **support, oppose, apply,** or **give more information** about certain main points. For this exercise, timing and reading strategy are unimportant—take as much time as you need to see the underlying reasoning structure behind each passage. Check the solution to the first passage before moving on to the others.

Reasoning Structure Drill

Recently, a new school of economics called steady-state economics has seriously challenged neoclassical economics, the reigning school in Western economic decision making. According to the neoclassical model, an economy is a closed system involving only the circular flow of exchange value between producers and consumers. Therefore, no noneconomic constraints impinge upon the economy and growth has no limits. Indeed, some neoclassical economists argue that growth itself is crucial, because, they claim, the solutions to problems often associated with growth (income inequities, for example) can be found only in the capital that further growth creates.

Steady-state economists believe the neoclassical model to be unrealistic and hold that the economy is dependent on nature. Resources, they argue, enter the economy as raw material and exit as consumed products or waste; the greater the resources, the greater the size of the economy. According to these economists, nature's limited capacity to regenerate raw material and absorb waste suggests that there is an optimal size for the economy, and that growth beyond this ideal point would increase the cost to the environment at a faster rate than the benefit to producers and consumers, generating cycles that impoverish rather than enrich. Steady-state economists thus believe that the concept of an ever growing economy is dangerous, and that the only alternative is to maintain a state in which the economy remains in equilibrium with nature. Neoclassical economists, on the other hand, consider nature to be just one element of the economy rather than an outside constraint, believing that natural resources, if depleted, can be replaced with other elements—i.e., human-made resources—that will allow the economy to continue with its process of unlimited growth.

Some steady-state economists, pointing to the widening disparity between indices of actual growth (which simply count the total monetary value of goods and services) and the index of environmentally sustainable growth (which is based on personal consumption, factoring in depletion of raw materials and production costs), believe that Western economies have already exceeded their optimal size. In response to the warnings from neoclassical economists that checking economic growth only leads to economic stagnation, they argue that there are alternatives to growth that still accomplish what is required of any economy: the satisfaction of human wants. One of the alternatives is conservation. Conservation—for example, increasing the efficiency of resource use through means such as recycling—differs from growth in that it is qualitative, not quantitative, requiring improvement in resource management rather than an increase in the amount of resources. One measure of the success of a steady-state economy would be the degree to which it could implement alternatives to growth, such as conservation, without sacrificing the ability to satisfy the wants of producers and consumers.

Practice Test 28, Passage 3

Homing pigeons can be taken from their lofts and transported hundreds of kilometers in covered cages to unfamiliar sites and yet, when released, be able to choose fairly accurate homeward bearings within a minute and fly home. Aside from reading the minds of the experimenters (a possibility that has not escaped investigation), there are two basic explanations for the remarkable ability of pigeons to "home": the birds might keep track of their outward displacement (the system of many short-range species such as honeybees); or they might have some sense, known as a "map sense," that would permit them to construct an internal image of their environment and then "place" themselves with respect to home on some internalized coordinate system.

The first alternative seems unlikely. One possible model for such an inertial system might involve an internal magnetic compass to measure the directional leg of each journey. Birds transported to the release site wearing magnets or otherwise subjected to an artificial magnetic field, however, are only occasionally affected. Alternately, if pigeons measure their displacement by consciously keeping track of the direction and degree of acceleration and deceleration of the various turns, and timing the individual legs of the journey, simply transporting them in the dark, with constant rotations, or under complete anesthesia ought to impair or eliminate their ability to orient. These treatments, however, have no effect. Unfortunately, no one has yet performed the crucial experiment of transporting pigeons in total darkness, anesthetized, rotating, and with the magnetic field reversed all at the same time.

The other alternative, that pigeons have a "map sense," seems more promising, yet the nature of this sense remains mysterious. Papi has posited that the map sense is olfactory: that birds come to associate odors borne on the wind with the direction in which the wind is blowing, and so slowly build up an olfactory map of their surroundings. When transported to the release site, then, they only have to sniff the air en route and/or at the site to know the direction of home. Papi conducted a series of experiments showing that pigeons whose nostrils have been plugged are poorly oriented at release and home slowly.

One problem with the hypothesis is that Schmidt-Koenig and Phillips failed to detect any ability in pigeons to distinguish natural air (presumably laden with olfactory map information) from pure, filtered air. Papi's experimental results, moreover, admit of simpler, nonolfactory explanations. It seems likely that the behavior of nostril-plugged birds results from the distracting and traumatic nature of the experiment. When nasal tubes are used to bypass the olfactory chamber but allow for comfortable breathing, no disorientation is evident. Likewise, when the olfactory epithelium is sprayed with anesthetic to block smell-detection but not breathing, orientation is normal.

Practice Test 27, Passage 3

Reasoning Structure Drill

In England before 1660, a husband controlled his wife's property. In the late seventeenth and eighteenth centuries, with the shift from land-based to commercial wealth, marriage began to incorporate certain features of a contract. Historians have traditionally argued that this trend represented a gain for women, one that reflects changing views about democracy and property following the English Restoration in 1660. Susan Staves contests this view; she argues that whatever gains marriage contracts may briefly have represented for women were undermined by judicial decisions about women's contractual rights.

Shifting through the tangled details of court cases, Staves demonstrates that, despite surface changes, a rhetoric of equality, and occasional decisions supporting women's financial power, definitions of men's and women's property remained inconsistent-generally to women's detriment. For example, dower lands (property inherited by wives after their husbands' deaths) could not be sold, but "curtesy" property (inherited by husbands from their wives) could be sold. Furthermore, comparatively new concepts that developed in conjunction with the marriage contract, such as jointure, pin money, and separate maintenance, were compromised by peculiar rules. For instance, if a woman spent her pin money (money paid by the husband according to the marriage contract for the wife's personal items) on possessions other than clothes she could not sell them; in effect they belonged to her husband. In addition, a wife could sue for pin money only up to a year in arrears-which rendered a suit impractical. Similarly, separate maintenance allowances (stated sums of money for the wife's support if husband and wife agreed to live apart) were complicated by the fact that if a couple tried to agree in a marriage contract on an amount, they were admitting that a supposedly indissoluble bond could be dissolved, an assumption courts could not recognize. Eighteenth-century historians underplayed these inconsistencies, calling them "little contrarieties" that would soon vanish. Staves shows, however, that as judges gained power over decisions on marriage contracts, they tended to fall back on pre-1660 assumptions about property.

Staves' work on women's property has general implications for other studies about women in eighteenth-century England. Staves revises her previous claim that separate maintenance allowances proved the weakening of patriarchy; she now finds that an oversimplification. She also challenges the contention by historians Jeanne and Lawrence Stone that in the late eighteenth century wealthy men married widows less often than before because couples began marrying for love rather than for financial reasons. Staves does not completely undermine their contention, but she does counter their assumption that widows had more money than never-married women. She points out that jointure property (a widow's lifetime use of an amount of money specified in the marriage contract) was often lost on remarriage.

Practice Test 26, Passage 4

As one of the most pervasive and influential popular arts, the movies feed into and off of the rest of the culture in various ways. In the United States, the star system of the mid-1920s—in which actors were placed under exclusive contract to particular Hollywood film studios—was a consequence of studios' discovery that the public was interested in actor's private lives, and that information about actors could be used to promote their films. Public relations agents fed the information to gossip columnists, whetting the public's appetite for the films—which, audiences usually discovered, had the additional virtue of being created by talented writers, directors, and producers devoted to the art of storytelling. The important feature of this relationship was not the benefit to Hollywood, but rather to the press; in what amounted to a form of cultural cross-fertilization, the press saw that they could profit from studios' promotion of new films.

Today this arrangement has mushroomed into an intricately interdependent mass-media entertainment industry. The faith by which this industry sustains itself is the belief that there is always something worth promoting. A vast portion of the mass media—television and radio interviews, magazine articles, even product advertisements—now does most of the work for Hollywood studios attempting to promote their movies. It does so not out of altruism but because it makes for good business: If you produce a talk show or edit a newspaper, and other media are generating public curiosity about a studio's forthcoming film, it would be unwise for you not to broadcast or publish something about the film, too, because the audience for your story is already guaranteed.

The problem with this industry is that it has begun to affect the creation of films as well as their promotion. Choices of subject matter and actors are made more and more frequently by studio executives rather than by producers, writers, or directors. This problem is often referred to simply as an obsession with turning a profit, but Hollywood movies have almost always been produced to appeal to the largest possible audience. The new danger is that, increasingly, profit comes only from exciting an audience's curiosity about a movie instead of satisfying its desire to have an engaging experience watching the film. When movies can pull people into theaters instantly on the strength of media publicity rather than relying on the more gradual process of word of mouth among satisfied moviegoers, then the intimate relationship with the audience—on which the vitality of all popular art depends—is lost. But studios are making more money than ever by using this formula, and for this reason it appears that films whose appeal is due not merely to their publicity value but to their ability to affect audiences emotionally will become increasingly rare in the U.S. film industry.

Practice Test 28, Passage 4

Reasoning Structure Drill Solutions

Note that I am not advocating this type of notation process during the exam. The bolding and underlining and such are simply for illustrative purposes.

This passage makes its intention clear from the get-go: we are going to have a comparison of two economic schools of thought—neoclassical and steady-state.

Recently, a new school of economics called steady-state economics has seriously challenged neoclassical economics, the reigning school in Western economic decision making. According to the neoclassical model, an economy is a closed system involving only the circular flow of exchange value between producers and consumers. Therefore, no noneconomic constraints impinge upon the economy and growth has no limits. Indeed, some neoclassical economists argue that growth itself is crucial, because, they claim, the solutions to problems often associated with growth (income inequities, for example) can be found only in the capital that further growth creates.

more info

Neoclassical: economy is a closed system between makers and buyers. No noneconomic factors matter and there is no limit to growth.

Steady-state: economy is based on nature, and ideal use of natural resources.

Steady-state economists believe the neoclassical model to be unrealistic and hold that the economy is dependent on nature. Resources, they argue, enter the economy as raw material and exit as consumed products or waste; the greater the resources, the greater the size of the economy. According to these economists, nature's limited capacity to regenerate raw material and absorb waste suggests that there is an optimal size for the economy, and that growth beyond this ideal point would increase the cost to the environment at a faster rate than the benefit to producers and consumers, generating cycles that impoverish rather than enrich. Steady-state economists thus believe that the concept of an ever growing economy is dangerous, and that the only alternative is to maintain a state in which the economy remains in equilibrium with nature. Neoclassical economists, on the other hand, consider nature to be just one element of the economy rather than an outside constraint, believing that natural resources, if depleted, can be replaced with other elements—i.e., human-made resources—that will allow the economy to continue with its process of unlimited growth.

more info

more info

"Growth" is a point in which there is clear contrast between the two opinions.

Some steady-state economists, pointing to the widening disparity between indices of actual growth (which simply count the total monetary value of goods and services) and the index of environmentally sustainable growth (which is based on personal consumption, factoring in depletion of raw materials and production costs), believe that Western economies have already exceeded their optimal size. In response to the warnings from neoclassical economists that checking economic growth only leads to economic stagnation, they argue that there are alternatives to growth that still accomplish what is required of any economy: the satisfaction of human wants. One of the alternatives is conservation. Conservation—for example, increasing the efficiency of resource use through means such as recycling—differs from growth in that it is qualitative, not quantitative, requiring improvement in resource management rather than an increase in the amount of resources. One measure of the success of a steady-state economy would be the degree to which it could implement alternatives to growth, such as conservation, without sacrificing the ability to satisfy the wants of producers and consumers.

Practice Test 28, Passage 3

more info / application

This last paragraph is a bit different from the previous ones; instead of giving information about one concept or the other, it shows application of one concept—steady-state—to a real situation—Western economies.

background

The passage ends with a way to gauge the success of steady-state strategies. This was the last chance for the author to cast his opinion with one side or the other, and he chose not to do so.

Reasoning Structure Drill Solutions

Homing pigeons can be taken from their lofts and transported hundreds of kilometers in covered cages to unfamiliar sites and yet, when released, be able to choose fairly accurate homeward bearings within a minute and fly home. Aside from reading the minds of the experimenters (a possibility that has not escaped investigation), **there are two basic explanations for the remarkable ability of pigeons to "home": the birds might keep track of their outward displacement (the system of many short-range species such as honeybees); or they might have some sense, known as a "map sense," that would permit them to construct an internal image of their environment and then "place" themselves with respect to home on some internalized coordinate system.**

Like the last passage, this one makes clear from the beginning the two primary opinions to be contrasted, which we can call "honeybee" and "map sense."

author opinion/ evidence against honeybee

The first alternative seems unlikely. One possible model for such an inertial system might involve an internal magnetic compass to measure the directional leg of each journey. Birds transported to the release site wearing magnets or otherwise subjected to an artificial magnetic field, however, are only occasionally affected. Alternately, if pigeons measure their displacement by consciously keeping track of the direction and degree of acceleration and deceleration of the various turns, and timing the individual legs of the journey, simply transporting them in the dark, with constant rotations, or under complete anesthesia ought to impair or eliminate their ability to orient. These treatments, however, have no effect. Unfortunately, no one has yet performed the crucial experiment of transporting pigeons in total darkness, anesthetized, rotating, and with the magnetic field reversed all at the same time.

This first line is a clue into what the author thinks of the honeybee argument. The rest of this paragraph serves as evidence against that argument.

The first line of this paragraph indicates a more sophisticated author opinion—he finds the second hypothesis more promising, but still not completely understood. The rest of this paragraph presents an experiment in support of one way that map sense might work (through smell).

The other alternative, that pigeons have a "map sense," seems more promising, yet the nature of this sense remains mysterious. Papi has posited that the map sense is olfactory: that birds come to associate odors borne on the wind with the direction in which the wind is blowing, and so slowly build up an olfactory map of their surroundings. When transported to the release site, then, they only have to sniff the air en route and/or at the site to know the direction of home. Papi conducted a series of experiments showing that pigeons whose nostrils have been plugged are poorly oriented at release and home slowly.

author opinion/evidence for map sense

This final paragraph serves as evidence against the smell idea. Note that it'd be a mistake to overweigh this paragraph—it does not negate the map sense hypothesis (which the author finds promising). Rather, in a more direct sense, it counters one way (smell) that map sense might work, matching the author's opinion that the methods remain "mysterious."

One problem with the hypothesis is that Schmidt-Koenig and Phillips failed to detect any ability in pigeons to distinguish natural air (presumably laden with olfactory map information) from pure, filtered air. Papi's experimental results, moreover, admit of simpler, nonolfactory explanations. It seems likely that the behavior of nostril-plugged birds results from the distracting and traumatic nature of the experiment. When nasal tubes are used to bypass the olfactory chamber but allow for comfortable breathing, no disorientation is evident. Likewise, when the olfactory epithelium is sprayed with anesthetic to block smell-detection but not breathing, orientation is normal.

evidence against smell method of map sense

Practice Test 27, Passage 3

Reasoning Structure Drill Solutions

Another passage for which the argument is clearly laid out at the beginning, but note the slight difference in tone here. There is a slight sense that the historian's view is an out-of-date one, and that Staves's view will be the main focus of the passage

In England before 1660, a husband controlled his wife's property. In the late seventeenth and eighteenth centuries, with the shift from land-based to commercial wealth, marriage began to incorporate certain features of a contract. **Historians have traditionally argued that this trend represented a gain for women, one that reflects changing views about democracy and property following the English Restoration in 1660. Susan Staves contests this view; she argues that whatever gains marriage contracts may briefly have represented for women were undermined by judicial decisions about women's contractual rights.**

Historians argue that changes in law represented a gain for women, but Staves says the reality was that the false gains were undermined by judicial decisions.

The fact that the author uses the word "demonstrates," rather than, say, "claims," gives a hint as to the author's opinion—he finds the evidence Staves presents to be reasonable. The rest of the paragraph gives supporting reasoning for Staves's view. It's easy to get lost in the details, but as long as you understand reasoning structure you'll be fine for the questions.

support

Shifting through the tangled details of court cases, Staves **demonstrates** that, despite surface changes, a rhetoric of equality, and occasional decisions supporting women's financial power, definitions of men's and women's property remained inconsistent-generally to women's detriment. For example, dower lands (property inherited by wives after their husbands' deaths) could not be sold, but "curtesy" property (inherited by husbands from their wives) could be sold. Furthermore, comparatively new concepts that developed in conjunction with the marriage contract, such as jointure, pin money, and separate maintenance, were compromised by peculiar rules. For instance, if a woman spent her pin money (money paid by the husband according to the marriage contract for the wife's personal items) on possessions other than clothes she could not sell them; in effect they belonged to her husband. In addition, a wife could sue for pin money only up to a year in arrears-which rendered a suit impractical. Similarly, separate maintenance allowances (stated sums of money for the wife's support if husband and wife agreed to live apart) were complicated by the fact that if a couple tried to agree in a marriage contract on an amount, they were admitting that a supposedly indissoluble bond could be dissolved, an assumption courts could not recognize. Eighteenth-century historians underplayed these inconsistencies, calling them "little contrarieties" that would soon vanish. Staves shows, however, that as judges gained power over decisions on marriage contracts, they tended to fall back on pre-1660 assumptions about property.

support

support

Here the historians get a tiny rebuttal, crowded all around by support for Staves.

This paragraph expands on Staves's ideas by generalizing to other similar contexts.

Staves' work on women's property has general implications for other studies about women in eighteenth-century England. Staves revises her previous claim that separate maintenance allowances proved the weakening of patriarchy; she now finds that an oversimplification. She also challenges the contention by historians Jeanne and Lawrence Stone that in the late eighteenth century wealthy men married widows less often than before because couples began marrying for love rather than for financial reasons. Staves does not completely undermine their contention, but she does counter their assumption that widows had more money than never-married women. She points out that jointure property (a widow's lifetime use of an amount of money specified in the marriage contract) was often lost on remarriage.

application

Practice Test 26, Passage 4

Reasoning Structure Drill Solutions

The passage begins with background information about the film studies and the development of the star system. Unlike the previous passages, there is no clear set-up for some type of argument or main opinion.

As one of the most pervasive and influential popular arts, the movies feed into and off of the rest of the culture in various ways. In the United States, the star system of the mid-1920s—in which actors were placed under exclusive contract to particular Hollywood film studios—was a consequence of studios' discovery that the public was interested in actor's private lives, and that information about actors could be used to promote their films. Public relations agents fed the information to gossip columnists, whetting the public's appetite for the films—which, audiences usually discovered, had the additional virtue of being created by talented writers, directors, and producers devoted to the art of storytelling. **The important feature of this relationship was not the benefit to Hollywood, but rather to the press; in what amounted to a form of cultural cross-fertilization, the press saw that they could profit from studios' promotion of new films.**

This looks like the closest thing to an opinion, though it certainly has a more objective, rather than subjective, tone relative to the other arguments we have seen. Perhaps this is a main opinion, or even the author's opinion, but it seems more like a general observation. Let's keep reading...

This paragraph is an expansion of the background information presented in the first paragraph—it discusses the expansion of the star system and its impact on media. It does give us more information about the point made at the end of the final paragraph, but since that wasn't a particularly strong point to begin with, this paragraph seems mostly like background.

Today this arrangement has mushroomed into an intricately interdependent mass-media entertainment industry. The faith by which this industry sustains itself is the belief that there is always something worth promoting. A vast portion of the mass media—television and radio interviews, magazine articles, even product advertisements—now does most of the work for Hollywood studios attempting to promote their movies. It does so not out of altruism but because it makes for good business: If you produce a talk show or edit a newspaper, and other media are generating public curiosity about a studio's forthcoming film, it would be unwise for you not to broadcast or publish something about the film, too, because the audience for your story is already guaranteed.

?

The problem with this industry is that it has begun to affect the creation of films as well as their promotion. Choices of subject matter and actors are made more and more frequently by studio executives rather than by producers, writers, or directors. This problem is often referred to simply as an obsession with turning a profit, but Hollywood movies have almost always been produced to appeal to the largest possible audience. The new danger is that, increasingly, profit comes only from exciting an audience's curiosity about a movie instead of satisfying its desire to have an engaging experience watching the film. When movies can pull people into theaters instantly on the strength of media publicity rather than relying on the more gradual process of word of mouth among satisfied moviegoers, then the intimate relationship with the audience—on which the vitality of all popular art depends—is lost. But studios are making more money than ever by using this formula, and for this reason it appears that films whose appeal is due not merely to their publicity value but to their ability to affect audiences emotionally will become increasingly rare in the U.S. film industry.

Ahhh—we finally get a real opinion—a point—and now what we've been given up to this point all seems like background. His point is that the marketing of films is impacting the creation and promotion of films. The first two paragraphs are meant to set up the situation so that we understand this argument better when it is made.

The rest of this paragraph serves as support for the point that is made. Note that unlike other passages, we do not have a contrasting, or countering, opinion.

Practice Test 28, Passage 4

23 READING COMPREHENSION — reading strategies

We used the last lesson to take an in-depth look into the reasoning structure that underlies all LSAT passages. In this lesson, we'll begin the process of turning that understanding into an effective skill set.

We all know how to read, really, really well. We do it every single day, commonly for hours and hours. It's a fundamental part of being human. But (of course there is a but)...

We read very differently in different situations when we have different purposes, and the vast majority of LSAT-takers are unclear as to what sort of reading is rewarded by the exam, and commonly they are not as practiced and expert at this type of reading as they are at other types of reading.

Below are a variety of real-life situations that require you to read. Think about your mindset, and most importantly, your sense of purpose during these reading situations. Based on what we discussed in the last lesson, and based on what you know about LSAT Reading Comprehension in general, give a 0-10 score to each scenario based on how well you think these particular situations match the challenges presented by LSAT passages.

At the top of the next page are the scores that I would give. Keep in mind that this is obviously a highly subjective exercise.

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1. You've just bought some furniture and now you need to put it together. You realize that there are over two hundred pieces and the manual is five pages of dense prose. You get started reading.

2. It's Sunday morning. You sit down with your coffee, a cat on your lap and a dog at your feet, and you open up the New York Times.

3. After not communicating for months, your dead-beat brother writes you a long email, discussing the virtues of buying a new car. "Why is he telling me all this?" you wonder, until you get to the last few sentences, where he asks you to loan him a few bucks.

4. You are back in high school, and you have a history exam the next day. The exam is going to be multiple choice, and it's going to be about people, events, and dates—you have to match up the people with the dates or events. You've gotten a condensed two-page version of the key events you need to know, and are reading through it.

5. You are a human resources director at Google and your job is to read through hundreds of cover letters a day. You have two minutes to read each cover letter and your job is to objectively summarize the most significant points that the candidate attempts to make in the cover letter.

6. You return to your parked car and find that someone has smashed into it. They've left a note—a long explanation of the terrible day they have had and an apology—but no name, phone number, or any other way to get in touch. You read the letter again and again, looking for some clue that might help you find the person.

MY SUBJECTIVE SCORES

1. FURNITURE MANUAL: 0

Unless you are one of those existential types of furniture-makers, your thoughts during this process are a poor match for those you would have during the LSAT. For making the furniture, your job is to understand each direction as clearly as possible, and you can't move on until you do so. Thinking that way on the LSAT would typically be disastrous, for it's often impossible to truly understand the significance of certain sentences until far later in your reading process.

2. MORNING PAPER: 0

When you read the paper, you choose what you want to pay attention to, and your level of focus varies based on your level of interest. The things you notice are based on what you want to notice, not necessarily what the author intended for you to focus on, and you don't really care.

3. DEAD-BEAT BROTHER: 9

Note the primary driver of your reading process: "Why is he writing this?" This also happens to be an excellent mindset for the LSAT as well. As you read the note, you are focused on identifying main points and understanding why each sentence is there—which is pretty much what reading for reasoning structure is all about. The end of the note, like the end of many challenging passages, makes clear the purpose of all that preceded.

4. HISTORY EXAM: 0

Your focus would be to memorize specific details, and this would be an extreme version of seeing "the trees rather than the forest." This type of reading style is a poor match for the LSAT. You will get questions that relate to specific details, but as you'll soon see, the key to such questions is a correct understanding of the passage as a whole.

5. HUMAN RESOURCES: 9

This person's job is to read through passages quickly, searching for main points, not paying as much attention to secondary details. Also note that the purpose of the read is not to interpret, but rather to objectively gauge the author's intentions, which is your goal as well on the LSAT.

6. USELESS NOTE: 1

If some part of you is thinking, "WHY is this person writing this?" then you get a matching score of 1. If not, it goes back to 0. Looking for clues that clearly differ from the intentions of the author—the author has no intention of helping you find him/her—is a strategy that matches the LSAT poorly.

It's likely your scores utilized the range of scores between 1 and 10 better than mine did, and if my intention was a straight up match/no match (as my scores indicate) certainly I could have given a different set of instructions. The point I want to make clear here is that there is a specific way to read that matches LSAT passages best, rather than some diffuse concept of reading strategy that is somewhat like this, and somewhat like that. If we don't define our reading style clearly, and if we don't actively work to make this reading style a habit by test day, the way that we read in other parts of our lives will creep in to our thinking (whether we like it or not) and it will prevent us from performing at our best.

When it comes to reading, mindset and strategy go hand-in-hand. Let's discuss three tenets that are extremely useful for an effective mindset and for the development of effective reading strategies: focus on why, not what, embrace uncertainty, and use main points to drive your purpose.

One: Focus on Why, Not What

Remember, the LSAT is a test of how you read and how you think. It is not a test of what you know. The test writers are only interested in your ability to understand the words that are on the page. To see why, let's use an extreme example: let's imagine they included a very complex passage about various defensive strategies that NFL teams use. What would be the problem? A percentage of test takers would come in already knowing about these defensive strategies. Not only would this prior knowledge give these test takers an unfair advantage over those that are not interested in football, it would also weaken the validity of the measurements of reading ability.

Subject matter is not important to the test writers, other than for it being obscure enough, or common enough, to create a level playing field. What is far more important to test writers is reasoning structure—the way in which a passage is logically organized.

The subject matter is simply there because, well, you can't test reading skills without subjects. In many ways, the subjects discussed in LSAT passages are akin to the subjects discussed in the word problems you did in high school math. At some point, if you were good at math you naturally got to a point where you didn't care that you were filling up a pool or a bucket, measuring the height of a box or a building—you were focused on the math concepts being tested, and without much effort you would place the subject matter where it belonged—in the background.

You ought to feel the same way about the subjects discussed on the LSAT. Certain passages, in particular more difficult ones, will try to challenge you by discussing very archaic or confusing subjects—obscure bacteria or ancient Hebrew terms—but these actual subjects are not what matter.[1] You want to be able to push them to the background, and you want to push to the foreground the reasoning relationships *between* subjects, and the structural organization of the passage as a whole. Once you make it a habit to focus on this, you will find yourself unafraid of the subject matter discussed (what does it matter?) and of course your reading will align far better with the tasks that questions present.

1. At least while you read. During the process of solving questions, details will become more important, for you will use them to check answers against the text.

A great way to develop such a reading style into a habit is to continuously ask yourself, as you are reading, ***why*** the author has chosen to write what he or she did. When we read something complicated—let's say, for example, a sentence that attempts to conceptualize the theory of relatively—we are often naturally inclined to focus on the *what*—what is actually being said? What does this actually mean? For the LSAT, the *what* does not matter—what matters is the *why*. *Why* has the author written this sentence? Is this the main point he is making? Is this being used to support a main point, or oppose it? If you understand why each part of the passage is there, even if you are not clear on the exact subject matter, you will be prepared for the questions.

Remember, this is not a test of detail-retention, even if some questions make it seem that way. Your desire to retain too many details, or to understand intricate details, will prevent you from seeing the big picture. So don't focus too much on the *what*. Work to turn your attention to the *why*, and make sure that the *why* drives your thoughts during your read.

Two: Embrace Uncertainty

Imagine yourself in a dream. You are in a room, and someone comes in and gives you a single piece of paper that has on it a few paragraphs about the history of Japanese tea ceremonies. You are told that you have three minutes to read the passage and that you will be asked questions afterwards. You are also told that the outcome of this exam will have some unknown, but drastic, impact on the future of your life.

What do you do? Maybe you first try to recall everything you know about Japanese tea ceremonies, until you woefully realize you know nothing. Then you look down at that piece of paper—it has everything you need! So you grip it in your hands and read each word as carefully as possible, trying to suck as much knowledge into your brain in three minutes as you possibly can...but you can't understand or remember a word of it!

Of course, the dream scenario is a thinly-veiled analogy for the LSAT, and a poorly designed one at that. But I wanted to mimic, just for a second, the pressure that you will feel during the exam. It is very difficult to read under pressure—in particular, it is very difficult to read complex, convoluted, or unfamiliar material under pressure—and this is precisely what the LSAT is going to require of us.

One of the reasons it is so difficult to read under pressure is the fact that when we are nervous, we have an instinct to seek certainty. We want to completely understand passages, and we also know that we'll be in trouble if we don't. So, you go into a passage and you read the first paragraph and you have no idea what the author is talking about or why he's writing what he's writing, and your brain will start to panic—because you want to know what's going on. Knowing what's going on results in a high score, and not knowing what's going on results in the opposite. So you have all the motivation in the world to make decisions and assign meanings and roles that may or may not be accurate, in order to feel certain.

This desire to want to know more than you do, or to know faster than you can, is a huge problem when it comes to the LSAT. These passages are meant to have complex structures—after all, structure is all that the test writer really cares about—and it's often easiest to see this structure through a wide lens—that is, after you've taken in most, or all, of the passage. However, what happens is that because there is a great desire for certainty, many test takers make decisions about the meaning or purpose of a passage before it's actually been made clear; this tends to have a cascading effect, in that this incorrect perception will color everything else that follows. You misunderstand the first paragraph, and that leads you to misunderstanding the second, and so on. A correct and wise understanding requires patience. Pressure often leads us to jump to conclusions—conclusions that are too commonly proven to be incorrect.

Passages are designed like good stories—with twists, turns, and surprises. With stories, it's always easier to see, after the fact, how everything in the story was meant to fit together, and it's exactly the same thing with LSAT passages. Know what you know. Just as importantly, know what don't know, and allow yourself to be okay with uncertainty—the LSAT consistently rewards the ability to withhold judgement. If you don't know exactly why a sentence has been written, the best clue will probably be in the next sentence. If you don't quite understand the significance of a paragraph, the best way to find out is probably to read the next one.

To be clear, I don't mean for you to rush through your read, and your read should have its natural pauses and moments of reflection, as we'll discuss in greater detail in just a bit. The point is to use these reflections to gauge what you know with certainty versus what you don't, and to be okay with not being certain when certainty is not warranted.

Three: Let Main Points Light the Way

When we read in terms of the why, and when we are okay with being uncertain, it makes it much easier for us to organize and gauge our thoughts in terms of the main points that are being made. These main points give purpose to everything, and can, when used effectively, streamline and drive forward your reading process.

An LSAT reading passage will most commonly have two main ideas, or opinions. These viewpoints will commonly be presented in contrast to one another, and in most instances the author makes it known, often subtly, that he or she has an opinion on the matter. Most commonly this opinion will side with one main idea or the other, but it can be more sophisticated than that—perhaps the author finds fault with both ideas, or finds some way to bridge them. The minority of passages—perhaps one or two of the four that you will see on your exam—will have one main idea, or multiple (usually no more than three) contrasting viewpoints. A minority of passages will present no clear author bias or opinion.

Main points can be presented at different parts of the passage. Sometimes they are all presented up front. Other times, they are spread out. Still other times, commonly in the most difficult passages, they are presented deep into the passage. Also keep in mind that often they will not be as obviously subjective—that is, opinion-like—as the conclusions or main points we've discussed so far in Logical Reasoning questions.[2]

2. This is because the Logical Reasoning arguments we've focused on thus far, and the majority of Logical Reasoning arguments in general, involve reasoning that is purposely designed to be faulty. Other Logical Reasoning arguments, those associated with questions that don't require us to identify reasoning faults, tend to have more objective conclusions, similar to those we will see in Reading Comprehension passages.

No matter the organizational design of the passage, whether the main ideas come at the beginning or the end, you can read each component of the passage with an eye toward what role it does, or could, play relative to main points. You can read a first paragraph, for example, and see that it's very objective and straightforward, and anticipate that it's background information for some sort of claim that will come in a later paragraph. You can read about a certain type of experiment, or unexpected finding in nature, and predict that it will be used to support some sort of scientific hypothesis.

It is not uncommon for even the best readers to be wrong in predicting this role—in fact, it's natural, for, when you think about it, good writing often involves the build-up of expectation, followed by an unexpected twist or turn. A good reader recognizes that a prediction of a role is simply a prediction (i.e., isn't certain when he shouldn't be), and he recognizes when new clues present a different picture of what he's just read. You want to make it a habit to constantly consider and recalibrate roles as you read, and you should make it a habit to build in moments of reflection—at paragraph breaks and when main points are presented—so that you can keep a tight grip on the passage structure.

And, as mentioned on the previous page, the best time to most easily understand the reasoning structure of a passage is at the end of it. At that point, the uncertainty needs to end. You should be able to clearly see what the main point(s) are, and you should be able to see how each part of the passage relates to these main points. If you cannot, then it's a sign that you don't understand the passage as well as you should, and that you need to go back in to dig out those main points and piece together everything else in relation. Even the best readers are challenged by certain passages, and have to reread certain parts after the fact to completely grasp what they just read. Remember, as I've often said before, the test is difficult for everyone—those who are successful are those who have the skills to conquer adversity. When it comes to difficult reading challenges, a lot of that has to do with a correct mindset ("I need to understand this passage in terms of reading structure"), and plenty of experience reading and organizing actual LSAT passages.

On the next few passages I will break down the reading process in real time, using two passages that we introduced in the last lesson. This will be followed by a summary of what we'd know by the end of the read, as well as a couple of examples of how this type of reading strategy pays off when it comes time to answer questions.

the reading process

Recently, a new school of economics called steady-state economics has seriously challenged neoclassical economics, the reigning school in Western economic decision making. According to the neoclassical model, an economy is a closed system involving only the circular flow of exchange value between producers and consumers. Therefore, no noneconomic constraints impinge upon the economy and growth has no limits. Indeed, some neoclassical economists argue that growth itself is crucial, because, they claim, the solutions to problems often associated with growth (income inequities, for example) can be found only in the capital that further growth creates.

the passage is going to contrast these two ideas

one main point: neoclassical—closed system between sellers and buyers. What is closed?

that's what closed means

more about neoclassical

Steady-state economists believe the neoclassical model to be unrealistic and hold that the economy is dependent on nature. Resources, they argue, enter the economy as raw material and exit as consumed products or waste; the greater the resources, the greater the size of the economy. According to these economists, nature's limited capacity to regenerate raw material and absorb waste suggests that there is an optimal size for the economy, and that growth beyond this ideal point would increase the cost to the environment at a faster rate than the benefit to producers and consumers, generating cycles that impoverish rather than enrich. Steady-state economists thus believe that the concept of an ever growing economy is dangerous, and that the only alternative is to maintain a state in which the economy remains in equilibrium with nature. Neoclassical economists, on the other hand, consider nature to be just one element of the economy rather than an outside constraint, believing that natural resources, if depleted, can be replaced with other elements—i.e., human-made resources—that will allow the economy to continue with its process of unlimited growth.

other main point: steady-state—economy dependent on nature. Huh?

okay, I get it—steady-state—economy healthy when it uses natural resources well

more about steady-state—contrasts neoclassical view of growth

more contrast between the two

Some steady-state economists, pointing to the widening disparity between indices of actual growth (which simply count the total monetary value of goods and services) and the index of environmentally sustainable growth (which is based on personal consumption, factoring in depletion of raw materials and production costs), believe that Western economies have already exceeded their optimal size. In response to the warnings from neoclassical economists that checking economic growth only leads to economic stagnation, they argue that there are alternatives to growth that still accomplish what is required of any economy: the satisfaction of human wants. One of the alternatives is conservation. Conservation—for example, increasing the efficiency of resource use through means such as recycling—differs from growth in that it is qualitative, not quantitative, requiring improvement in resource management rather than an increase in the amount of resources. One measure of the success of a steady-state economy would be the degree to which it could implement alternatives to growth, such as conservation, without sacrificing the ability to satisfy the wants of producers and consumers.

applying steady-state ideas to western economies—they are not in good shape

application: steady-state solution to problem is conservation

way to gauge success of steady-state. Note: no author opinion anywhere

Practice Test 28, Passage 3

15. Based on the passage, neoclassical economists would likely hold that steady-state economists are wrong to believe each of the following EXCEPT:

(A) The environment's ability to yield raw material is limited.
(B) Natural resources are an external constraint on economies.
(C) The concept of unlimited economic growth is dangerous.
(D) Western economies have exceeded their optimal size.
(E) Economies have certain optimal sizes.

In the next swatch of Reading Comprehension lessons, we will discuss in depth the language presented in question stems, but for now notice just two things: *would likely* indicates that the answers should, in general, agree with what we've read, but that there will not be direct matches for the text; and the EXCEPT tells us, of course, that we're looking for something neoclassicals wouldn't fault steady-state economists for believing.

(A) seems correct—the neoclassicals don't disagree that the world has a limited amount of raw material (they just feel we can deal with it fine if we do run out of material). Let's see why the other answers are wrong. (B) is something neoclassicals definitely think is wrong, per the end of the second paragraph. (C) is definitely something neoclassicals think is wrong, and growth was set up very early on as one big contrast between the two theories. (D) is also something neoclassicals would think is wrong (since they don't think there can be too much growth). (E) is also definitely something they would disagree with (for the same reason as (D)). Since we are able to eliminate all four wrong answers with confidence, we can feel assured that we understood the question correctly, and after checking the wording one more time, we can go ahead and select (A) as the correct answer.

18. Based on the passage, a steady-state economist is most likely to claim that a successful economy is one that satisfies which one of the following principles?

(A) A successful economy uses human-made resources in addition to natural resources.
(B) A successful economy satisfies human wants faster than it creates new ones.
(C) A successful economy maintains an equilibrium with nature while still satisfying human wants.
(D) A successful economy implements every possible means to prevent growth.
(E) A successful economy satisfies the wants of producers and consumers by using resources to spur growth.

Again, the question stem has the phrase *most likely*. Also, we can anticipate a bit about what the right answer will involve—something about a balance between us and nature.

(A) and (B) do not directly relate to steady-state theory and can be quickly eliminated. (C) matches steady-state principles very well, and is most likely correct. (D) takes steady-state too far and misunderstands it—the goal is not to prevent growth no matter what. (E) lines up more with the neoclassicals. There are no other attractive answers, so after checking each word in (C) again we can go ahead and select it as the correct answer.

the reading process

As one of the most pervasive and influential popular arts, the movies feed into and off of the rest of the culture in various ways. In the United States, the star system of the mid-1920s—in which actors were placed under exclusive contract to particular Hollywood film studios—was a consequence of studios' discovery that the public was interested in actor's private lives, and that information about actors could be used to promote their films. Public relations agents fed the information to gossip columnists, whetting the public's appetite for the films—which, audiences usually discovered, had the additional virtue of being created by talented writers, directors, and producers devoted to the art of storytelling. The important feature of this relationship was not the benefit to Hollywood, but rather to the press; in what amounted to a form of cultural cross-fertilization, the press saw that they could profit from studios' promotion of new films.

background: connection between studio star system and press

opinion: press got more out of this relationship; is this main point?

Today this arrangement has mushroomed into an intricately interdependent mass-media entertainment industry. The faith by which this industry sustains itself is the belief that there is always something worth promoting. A vast portion of the mass media—television and radio interviews, magazine articles, even product advertisements—now does most of the work for Hollywood studios attempting to promote their movies. It does so not out of altruism but because it makes for good business: If you produce a talk show or edit a newspaper, and other media are generating public curiosity about a studio's forthcoming film, it would be unwise for you not to broadcast or publish something about the film, too, because the audience for your story is already guaranteed.

more on growth of relationship between studio system and press

The problem with this industry is that it has begun to affect the creation of films as well as their promotion. Choices of subject matter and actors are made more and more frequently by studio executives rather than by producers, writers, or directors. This problem is often referred to simply as an obsession with turning a profit, but Hollywood movies have almost always been produced to appeal to the largest possible audience. The new danger is that, increasingly, profit comes only from exciting an audience's curiosity about a movie instead of satisfying its desire to have an engaging experience watching the film. When movies can pull people into theaters instantly on the strength of media publicity rather than relying on the more gradual process of word of mouth among satisfied moviegoers, then the intimate relationship with the audience—on which the vitality of all popular art depends—is lost. But studios are making more money than ever by using this formula, and for this reason it appears that films whose appeal is due not merely to their publicity value but to their ability to affect audiences emotionally will become increasingly rare in the U.S. film industry.

ahh. This is his main opinion—there is a problem with the relationship

and this is the danger: since anticipation drives sales, film quality going down

consequence: since system is making money, changes unlikely

Practice Test 28, Passage 4

25. Which one of the following most accurately describes the organization of the passage?

(A) description of the origins of a particular aspect of a popular art; discussion of the present state of this aspect; analysis of a problem associated with this aspect; introduction of a possible solution to the problem
(B) description of the origins of a particular aspect of a popular art; discussion of the present state of this aspect; analysis of a problem associated with this aspect; suggestion of a likely consequence of the problem
(C) description of the origins of a particular aspect of a popular art; analysis of a problem associated with this aspect; introduction of a possible solution to the problem; suggestion of a likely consequence of the solution
(D) summary of the history of a particular aspect of a popular art; discussion of a problem that accompanied the growth of this aspect; suggestion of a likely consequence of the problem; appraisal of the importance of avoiding this consequence
(E) summary of the history of a particular aspect of a popular art; analysis of factors that contributed to the growth of this aspect; discussion of a problem that accompanied the growth of this aspect; appeal for assistance in solving the problem

Most questions, in one way or another, test your understanding of reasoning structure—this question does so in a very general and direct fashion. The attention we gave to the structure during the read is going to pay off with great dividends here.

There is great commonality among these answer choices, and the answer choices themselves require careful reading. Each answer represents the entire passage, separated into components, and in this scenario it's likely that parts of certain answers will match the text, and other parts won't. You want to first focus on trying to identify the faults that make answers incorrect.

(A) is attractive, but we are given no solution to the problem. (B) seems okay—we'll leave it. (C) mentions a solution, which we weren't given. (D) is close, but not quite right—it brings up the problem earlier than the author did, and we haven't been given an appraisal of the importance of avoiding the consequence. (E) discusses an appeal for assistance, which we don't have.

That leaves only (B). If we walk through each component of (B), we see no egregiously false wording, and the answer seems a good match for the structure we saw initially. (B) is correct.

26. The author's position in lines 35-47 would be most weakened if which one of the following were true?

(A) Many Hollywood studio executives do consider a film's ability to satisfy moviegoers emotionally.
(B) Many Hollywood studio executives achieved their positions as a result of demonstrating talent at writing, producing, or directing films that satisfy audiences emotionally.
(C) Most writers, producers, and directors in Hollywood continue to have a say in decisions about the casting and content of films despite the influence of studio executives.
(D) The decisions made by most Hollywood studio executives to improve a film's chances of earning a profit also add to its ability to satisfy moviegoers emotionally.
(E) Often the U.S. mass media play an indirect role in influencing the content of the films that Hollywood studios make by whetting the public's appetite for certain performers or subjects.

Before we go into the answers, we want to remind ourselves of the author's opinion that is being discussed: the emphasis placed on promotion of films is taking away from the quality of films. From our Logical Reasoning experience, we know that a likely weakener will be an answer that hints at the opposite—the promotion of films may not impact quality.

(A) is tempting, but to what level are they considering it? If they are only considering it a little (and we don't know the degree, per this answer), and if they are considering it less than they used to, then this answer has little impact on our argument. (B) is tempting as well, but requires a lot of inferences to be relevant—who knows if these executives apply this talent to their present jobs? (C) is a very good answer—these are the people, after all, that we're told help improve the quality of films. However, like (A), without a sense of degree, this answer is pretty weak (maybe the writers, producers and directors only have a tiny say, and are overshadowed by the marketing people). (D) is exactly the answer we are looking for—notice it requires little inference on our part to see this answer's relevance—we are being told, directly, that these profit-driven decisions do help the quality of a film. (E) does not contradict or weaken the author's opinion and can be eliminated quickly.

MINDSET & STRATEGIES

FOCUS ON WHY, NOT WHAT

Complex subject matter, and the intricate details that are involved in the explanation of complex subject matter, are often the most challenging aspects of a passage. They are also the least important things for you to focus on during your read. What is important to you getting questions correct is the relationship *between* these elements. If you understand *why* each part of the passage is there, you hold the key to getting questions right.

EMBRACE UNCERTAINTY

In moments of pressure, we hate to be uncertain. And yet the most challenging parts of the test are often designed to leave you in suspense much of the time, and Reading Comprehension and Logic Games, in particular, reward those who are comfortable lingering in uncertainty when that uncertainty is warranted. Know that it's okay to be uncertain, and know that it's not your job to know everything all of the time. You have until the end of the passage to figure things out, and often it's far easier to see the reasoning structure after you've finished an entire paragraph, or an entire passage.

LET MAIN POINTS LIGHT THE WAY

For the LSAT, reasoning structure is best defined in terms of the relationship that various components of a passage have with the main points of the passage. When you read something and don't understand quite why it's there, often it's because that information is given in relation to a main point that hasn't been made yet. When that main point is made, that confusing component of the text will suddenly make more sense. So, prioritize main points and make sure that you understand them as well as you possibly can, for that will impact how easily you understand everything else. Also, when you think of reasoning structure, make sure you are thinking in terms of how various components of a passage relate to the main points being made.

GENERAL READING STRATEGIES

1. The main thing you should be thinking about as you read a piece of text is, "Why did the author write this?" Use this to define your level of certainty—when you understand the role that each part of the passage plays, you will be ready to answer questions.

2. Do your best to understand the details as well as you can, but do not get bogged down in them. It is very common for people to get bogged down in details (per the desire to understand and be in control of everything) but a successful LSAT test taker must have the mental discipline to overcome this instinct. If you don't understand a sentence, but you know exactly why it's there and you know it's not the main point—then move on. You know it well enough, and you can always come back and review the details if a question happens to ask about them.

3. If you do not get bogged down in details, you can get through a passage fairly quickly—a straight read-through without rushing and without any pauses will take a little less than two minutes for the average passage for the average person. The more experienced you get with LSAT passages, the faster you will get at reading them, for you will naturally be more confident and in control of what to pay attention to and what not to pay attention to, what to make sure you get out of your read and what to not worry about.

4. You should allow yourself to be uncertain, but at the same time you need to stay on top of your uncertainty. If you don't know why the introductory paragraph is there—that's okay—chances are the passage has been purposely designed to make you feel that way. However, you want to remain mindful of this as you read the next paragraph, and the next one, and you want to use your growing bank of knowledge about the passage to go back and reflect on that first paragraph. By the end of your read, you should expect that you know exactly why each part of the passage is there.

5. You can let yourself rush a bit through secondary information—background and supporting or opposing details—that is easy to understand and assign a purpose to, for those components of a passage are less important for answering questions. You should also allow yourself moments to pause and reflect on how what you've read comes together. Remember the analogy we made about an LSAT passage being a bit like a movie—with twists and turns that are difficult to predict in the moment, but far easier to understand after the fact; well, imagine that every few minutes you paused the movie and thought carefully about what you'd seen thus far. You would most certainly have a better sense of the movie's structure than you would if you simply watched it straight through. And, by the time the ending was revealed—even if you couldn't predict it, it would be far easier for you to quickly and accurately see how everything led to that point. The same goes for RC passages. Build in moments of reflection to collect your thoughts and to anticipate what might come as you read ahead. Paragraph breaks are terrific moments for pauses, and it should be a habit that you use them to reflect on what you've read and to anticipate what is to come.

6. For some of the most challenging passages, the full structure doesn't reveal itself until the final sentence, when suddenly the author gives that second main point you'd given up waiting for, or gives an opinion that seems unexpected based on what you've read thus far. Leave yourself open for these moments, and as I've stated before, don't rush to understand everything when they haven't given you enough information to do so.

7. Make it a habit to take a few seconds after you are done reading the entire passage to review the passage structure one more time. As per the movie analogy, it is amazing how much clearer the structure can seem after the fact. Furthermore, the more you practice doing this review, the faster you will get at it. If you've understood the passage well, you should be able to skim through and see exactly where the main points are made, where the support is, where the background is, and so on. If you've had a difficult time with the passage, or if the passage has been a particularly challenging one, this review is a great time to finalize any decisions you need to make, and to get rid of all those last uncertainties.

Reading Strategy Drill 1

For each of the next two passages, simply read the passage and answer the two accompanying questions, then read the solution afterwards.

In recent years, a growing belief that the way society decides what to treat as true is controlled through largely unrecognized discursive practices has led legal reformers to examine the complex interconnections between narrative and law. In many legal systems, legal judgments are based on competing stories about events. Without having witnessed these events, judges and juries must validate some stories as true and reject others as false. This procedure is rooted in objectivism, a philosophical approach that has supported most Western legal and intellectual systems for centuries. Objectivism holds that there is a single neutral description of each event that is unskewed by any particular point of view and that has a privileged position over all other accounts. The law's quest for truth, therefore, consists of locating this objective description, the one that tells what really happened, as opposed to what those involved thought happened. The serious flaw in objectivism is that there is no such thing as the neutral, objective observer. As psychologists have demonstrated, all observers bring to a situation a set of expectations, values, and beliefs that determine what the observers are able to see and hear. Two individuals listening to the same story will hear different things, because they emphasize those aspects that accord with their learned experiences and ignore those aspects that are dissonant with their view of the world. Hence there is never any escape in life or in law from selective perception, or from subjective judgments based on prior experiences, values, and beliefs.

The societal harm caused by the assumption of objectivist principles in traditional legal discourse is that, historically, the stories judged to be objectively true are those told by people who are trained in legal discourse, while the stories of those who are not fluent in the language of the law are rejected as false.

Legal scholars such as Patricia Williams, Derrick Bell, and Mari Matsuda have sought empowerment for the latter group of people through the construction of alternative legal narratives. Objectivist legal discourse systematically disallows the language of emotion and experience by focusing on cognition in its narrowest sense. These legal reformers propose replacing such abstract discourse with powerful personal stories. They argue that the absorbing, nonthreatening structure and tone of personal stories may convince legal insiders for the first time to listen to those not fluent in legal language. The compelling force of personal narrative can create a sense of empathy between legal insiders and people traditionally excluded from legal discourse and, hence, from power. Such alternative narratives can shatter the complacency of the legal establishment and disturb its tranquility. Thus, the engaging power of narrative might play a crucial, positive role in the process of legal reconstruction by overcoming differences in background and training and forming a new collectivity based on emotional empathy.

Practice Test 22, Passage 2

9. Which one of the following best states the main idea of the passage?

(A) Some legal scholars have sought to empower people historically excluded from traditional legal discourse by instructing them in the forms of discourse favored by legal insiders.
(B) Some legal scholars have begun to realize the social harm caused by the adversarial atmosphere that has pervaded many legal systems for centuries.
(C) Some legal scholars have proposed alleviating the harm caused by the prominence of objectivist principles within legal discourse by replacing that discourse with alternative forms of legal narrative.
(D) Some legal scholars have contended that those who feel excluded from objectivist legal systems would be empowered by the construction of a new legal language that better reflected objectivist principles.
(E) Some legal scholars have argued that the basic flaw inherent in objectivist theory can be remedied by recognizing that it is not possible to obtain a single neutral description of a particular event.

15. Which one of the following statements about legal discourse in legal systems based on objectivism can be inferred from the passage?

(A) In most Western societies the legal establishment controls access to training in legal discourse.
(B) Expertise in legal discourse affords power in most Western societies.
(C) Legal discourse has become progressively more abstract for some centuries.
(D) Legal discourse has traditionally denied the existence of neutral, objective observers.
(E) Traditional legal discourse seeks to reconcile dissonant world views.

Reading Strategy Solution

In recent years, a growing belief that the way society decides what to treat as true is controlled through largely unrecognized discursive practices has led legal reformers to examine the complex interconnections between narrative and law. In many legal systems, legal judgments are based on competing stories about events. Without having witnessed these events, judges and juries must validate some stories as true and reject others as false. This procedure is rooted in objectivism, a philosophical approach that has supported most Western legal and intellectual systems for centuries. Objectivism holds that there is a single neutral description of each event that is unskewed by any particular point of view and that has a privileged position over all other accounts. The law's quest for truth, therefore, consists of locating this objective description, the one that tells what really happened, as opposed to what those involved thought happened. The serious flaw in objectivism is that there is no such thing as the neutral, objective observer. As psychologists have demonstrated, all observers bring to a situation a set of expectations, values, and beliefs that determine what the observers are able to see and hear. Two individuals listening to the same story will hear different things, because they emphasize those aspects that accord with their learned experiences and ignore those aspects that are dissonant with their view of the world. Hence there is never any escape in life or in law from selective perception, or from subjective judgments based on prior experiences, values, and beliefs.

background: huh? I have no idea what this means

this makes a bit more sense

background on objectivism, the idea behind the system (what's the main subject—objectivism or the system?)

here we go—now the purpose of the passage is clear. Seems objectivism is main subject, and author is not a fan of it

at the end of this paragraph I go back and reread the beginning sentence. Now it makes a bit more sense—what we think of as objective truth may be biased, and so reformers are now thinking anew about how narrative fits with the law.

The societal harm caused by the assumption of objectivist principles in traditional legal discourse is that, historically, the stories judged to be objectively true are those told by people who are trained in legal discourse, while the stories of those who are not fluent in the language of the law are rejected as false.

negative impact of objectivism—those who are trained in law better at making their side sound like the more objective one

Legal scholars such as Patricia Williams, Derrick Bell, and Mari Matsuda have sought empowerment for the latter group of people through the construction of alternative legal narratives. Objectivist legal discourse systematically disallows the language of emotion and experience by focusing on cognition in its narrowest sense. These legal reformers propose replacing such abstract discourse with powerful personal stories. They argue that the absorbing, nonthreatening structure and tone of personal stories may convince legal insiders for the first time to listen to those not fluent in legal language. The compelling force of personal narrative can create a sense of empathy between legal insiders and people traditionally excluded from legal discourse and, hence, from power. Such alternative narratives can shatter the complacency of the legal establishment and disturb its tranquility. Thus, the engaging power of narrative might play a crucial, positive role in the process of legal reconstruction by overcoming differences in background and training and forming a new collectivity based on emotional empathy.

counter to objectivism—replace abstract with personal

support for use of personal narratives

Practice Test 22, Passage 2

Reading Strategy Solution

COMMENTARY

This passage falls on the high end of the difficulty scale. Like many challenging passages, it presents its biggest challenges at the beginning; the first sentence is probably the most difficult sentence to understand in the entire passage, and the first paragraph is far more challenging and complex than are the ones that follow. In real time, I couldn't understand the first sentence even after a couple of reads, and my understanding of it slowly grew as I read the rest of the paragraph. Also, until we got to the sentence, "the serious flaw..." I wasn't sure that objectivism was the main topic of discussion. That one sentence was the key to the entire passage—now I realized that everything that came before was background for a critical analysis of objectivism, and in this light, the first sentence made a lot more sense, as did the rest of the very tough first paragraph.

The second paragraph is very straightforward in function—it gives more support to the author's criticism of objectivism and allows us to see a real-life negative consequence of it. After the second paragraph, I think that there is a very good chance that a contrasting idea will appear in the third, and that is indeed the case. The fact that I understand the structure up to that point, and the fact that I've anticipated the gist of the paragraph, makes it so that it is a far smoother and quicker read. One issue I'm looking out for carefully as I read that final paragraph is any sort of subtle inflection on the author's opinion. In this case, there really isn't a lot of subtlety—the author gives only positives of using personal narrative, without qualifying or presenting evidence for the other side.

QUESTIONS

9. Which one of the following best states the main idea of the passage?

(A) Some legal scholars have sought to empower people historically excluded from traditional legal discourse by instructing them in the forms of discourse favored by legal insiders.
(B) Some legal scholars have begun to realize the social harm caused by the adversarial atmosphere that has pervaded many legal systems for centuries.
(C) Some legal scholars have proposed alleviating the harm caused by the prominence of objectivist principles within legal discourse by replacing that discourse with alternative forms of legal narrative.
(D) Some legal scholars have contended that those who feel excluded from objectivist legal systems would be empowered by the construction of a new legal language that better reflected objectivist principles.
(E) Some legal scholars have argued that the basic flaw inherent in objectivist theory can be remedied by recognizing that it is not possible to obtain a single neutral description of a particular event.

We want an answer that represents the passage as a whole, and we want to start off by nit-picking all of the wrong answer choices. (A) is wrong because the passage is not about empowering people by teaching them to talk like lawyers. (B) is wrong because adversarial atmosphere is not the point of the passage. (C) seems good so let's leave it. (D) is good right until the end—we don't need a different reflection of objectivist principles. (E) describes some parts of the passage pretty well, but does a poor job of summarizing the passage as a whole (where is discussion of the final paragraph?). That leaves us with only (C). We check it carefully, word for word—no objections. (C) is correct.

15. Which one of the following statements about legal discourse in legal systems based on objectivism can be inferred from the passage?

(A) In most Western societies the legal establishment controls access to training in legal discourse.
(B) Expertise in legal discourse affords power in most Western societies.
(C) Legal discourse has become progressively more abstract for some centuries.
(D) Legal discourse has traditionally denied the existence of neutral, objective observers.
(E) Traditional legal discourse seeks to reconcile dissonant world views.

Much of the passage is about legal discourse based on objectivism, so we need to go into the answers with a wide net. Of course, our first job is to eliminate wrong choices. (A) can be eliminated quickly because access to legal training is not discussed. (B) seems well beyond the scope of the passage, but doesn't have something I can find specifically wrong. Let's leave it. (C) can be eliminated because an increase in abstraction is not discussed. (D) can be eliminated because traditional legal discourse did the opposite of denying objective observation. (E) is, like (B), extremely broad. I do a quick scan of the passage—nothing close to world views is mentioned. I can eliminate (E). That leaves only (B). It seems related to the passage but yet so extreme—can I justify it? I know power is mentioned in the last paragraph—looking back, the line does say that those who are excluded from legal discourse are excluded from power. What about "most Western societies?" Ah, there's justification for that in the middle of the first paragraph. (B) is correct.

This is a tough question. The key for me was that I was able to get rid of the four wrong answers quickly and confidently.

Reading Strategy Drill 2

Scientists typically advocate the analytic method of studying complex systems: systems are divided into component parts that are investigated separately. But nineteenth-century critics of this method claimed that when a system's parts are isolated its complexity tends to be lost. To address the perceived weaknesses of the analytic method these critics put forward a concept called organicism, which posited that the whole determines the nature of its parts and that the parts of a whole are interdependent.

Organicism depended upon the theory of internal relations, which states that relations between entities are possible only within some whole that embraces them, and that entities are altered by the relationships into which they enter. If an entity stands in a relationship with another entity, it has some property as a consequence. Without this relationship, and hence without the property, the entity would be different—and so would be another entity. Thus, the property is one of the entity's defining characteristics. Each of an entity's relationships likewise determines a defining characteristic of the entity.

One problem with the theory of internal relations is that not all properties of an entity are defining characteristics: numerous properties are accompanying characteristics—even if they are always present, their presence does not influence the entity's identity. Thus, even if it is admitted that every relationship into which an entity enters determines some characteristic of the entity, it is not necessarily true that such characteristics will define the entity; it is possible for the entity to enter into a relationship yet remain essentially unchanged.

The ultimate difficulty with the theory of internal relations is that it renders the acquisition of knowledge impossible. To truly know an entity, we must know all of its relationships; but because the entity is related to everything in each whole of which it is a part, these wholes must be known completely before the entity can be known. This seems to be a prerequisite impossible to satisfy.

Organicists' criticism of the analytic method arose from their failure to fully comprehend the method. In rejecting the analytic method, organicists overlooked the fact that before the proponents of the method analyzed the component parts of a system, they first determined both the laws applicable to the whole system and the initial conditions of the system; proponents of the method thus did not study parts of a system in full isolation from the system as a whole. Since organicists failed to recognize this, they never advanced any argument to show that laws and initial conditions of complex systems cannot be discovered. Hence, organicists offered no valid reason for rejecting the analytic method or for adopting organicism as a replacement for it.

Practice Test 25, Passage 4

22. Which one of the following most completely and accurately summarizes the argument of the passage?

(A) By calling into question the possibility that complex systems can be studied in their entirety, organicists offered an alternative to the analytic method favored by nineteenth-century scientists.
(B) Organicists did not offer a useful method of studying complex systems because they did not acknowledge that there are relationships into which an entity may enter that do not alter the entity's identity.
(C) Organicism is flawed because it relies on a theory that both ignores the fact that not all characteristics of entities are defining and ultimately makes the acquisition of knowledge impossible.
(D) Organicism does not offer a valid challenge to the analytic method both because it relies on faulty theory and because it is based on a misrepresentation of the analytic method.
(E) In criticizing the analytic method, organicists neglected to disprove that scientists who employ the method are able to discover the laws and initial conditions of the systems they study.

24. The passage offers information to help answer each of the following questions EXCEPT:

(A) Why does the theory of internal relations appear to make the acquisition of knowledge impossible?
(B) Why did the organicists propose replacing the analytic method?
(C) What is the difference between a defining characteristic and an accompanying characteristic?
(D) What did organicists claim are the effects of an entity's entering into a relationship with another entity?
(E) What are some of the advantages of separating out the parts of a system for study?

Reading Strategy Solution

Scientists typically advocate the analytic method of studying complex systems: systems are divided into component parts that are investigated separately. But nineteenth-century critics of this method claimed that when a system's parts are isolated its complexity tends to be lost. To address the perceived weaknesses of the analytic method these critics put forward a concept called organicism, which posited that the whole determines the nature of its parts and that the parts of a whole are interdependent.

two ideas being contrasted: analytic method (separate parts) and organicism (interdependant parts)

Organicism depended upon the theory of internal relations, which states that relations between entities are possible only within some whole that embraces them, and that entities are altered by the relationships into which they enter. If an entity stands in a relationship with another entity, it has some property as a consequence. Without this relationship, and hence without the property, the entity would be different—and so would be another entity. Thus, the property is one of the entity's defining characteristics. Each of an entity's relationships likewise determines a defining characteristic of the entity.

expansion of what organicism is

One problem with the theory of internal relations is that not all properties of an entity are defining characteristics: numerous properties are accompanying characteristics—even if they are always present, their presence does not influence the entity's identity. Thus, even if it is admitted that every relationship into which an entity enters determines some characteristic of the entity, it is not necessarily true that such characteristics will define the entity; it is possible for the entity to enter into a relationship yet remain essentially unchanged.

a problem! reason against organicism—some relationships aren't as important as others

The ultimate difficulty with the theory of internal relations is that it renders the acquisition of knowledge impossible. To truly know an entity, we must know all of its relationships; but because the entity is related to everything in each whole of which it is a part, these wholes must be known completely before the entity can be known. This seems to be a prerequisite impossible to satisfy.

ultimate problem! Renders knowledge impossible

Organicists' criticism of the analytic method arose from their failure to fully comprehend the method. In rejecting the analytic method, organicists overlooked the fact that before the proponents of the method analyzed the component parts of a system, they first determined both the laws applicable to the whole system and the initial conditions of the system; proponents of the method thus did not study parts of a system in full isolation from the system as a whole. Since organicists failed to recognize this, they never advanced any argument to show that laws and initial conditions of complex systems cannot be discovered. Hence, organicists offered no valid reason for rejecting the analytic method or for adopting organicism as a replacement for it.

explanation of why organicism is wrong—didn't realize analytic method starts with thoughts about whole systems

succinct explanation of author's (negative) attitude towards organicism

Practice Test 25, Passage 4

Reading Strategy Solution

COMMENTARY

The subject matter of this passage is complex and the discussion abstract, and if you are focused on those aspects this passage can seem quite difficult. The good news is that the reasoning structure is fairly straightforward. Additionally, the author has done us the favor of breaking up the passage into well organized, compact paragraphs. The paragraph structure helps us see the overall structure:

In the first paragraph, we are given two contrasting ideas—the status quo (the analytic method) and a response by critics (organicism). The next paragraph expands on what organicism is. The next paragraph gives us a problem with organicism, and the fourth an even bigger issue with organicism. By this point the author's opinion is fairly clear. In the final paragraph, the author says the organicists started off on a faulty premise, and he concludes by summarizing the faults with organicism that he has mentioned.

QUESTIONS

22. Which one of the following most completely and accurately summarizes the argument of the passage?

(A) By calling into question the possibility that complex systems can be studied in their entirety, organicists offered an alternative to the analytic method favored by nineteenth-century scientists.
(B) Organicists did not offer a useful method of studying complex systems because they did not acknowledge that there are relationships into which an entity may enter that do not alter the entity's identity.
(C) Organicism is flawed because it relies on a theory that both ignores the fact that not all characteristics of entities are defining and ultimately makes the acquisition of knowledge impossible.
(D) Organicism does not offer a valid challenge to the analytic method both because it relies on faulty theory and because it is based on a misrepresentation of the analytic method.
(E) In criticizing the analytic method, organicists neglected to disprove that scientists who employ the method are able to discover the laws and initial conditions of the systems they study.

We need an answer that represents the passage as a whole, and we'll start by eliminating obvious wrong choices. We want to get rid of answers that are significantly different from the text, or only represent one part of what is being discussed.

(A) represents part of the passage, but not all of it, and can be eliminated quickly. (B) also represents just one part of the argument and can be eliminated. (C) is a bit better, but fails to encompass the final paragraph. Still, let's leave it just in case. (D) seems like exactly what we were looking for—it represents the passage as a whole, and informs us of the author's view of the subject. (E) is not the point of the passage and can be quickly eliminated. I do a quick return to (C) and (D)—(D) gives us what (C) gives us (faulty theory) and also represents the other parts of the passage. (D) is correct.

24. The passage offers information to help answer each of the following questions EXCEPT:

(A) Why does the theory of internal relations appear to make the acquisition of knowledge impossible?
(B) Why did the organicists propose replacing the analytic method?
(C) What is the difference between a defining characteristic and an accompanying characteristic?
(D) What did organicists claim are the effects of an entity's entering into a relationship with another entity?
(E) What are some of the advantages of separating out the parts of a system for study?

The format of this question requires that we jump through a few more hoops than we normally need to—we have to think about the information in the text in terms of questions that it might answer, and it's also an EXCEPT question. Thinking about it carefully, it boils down to this—which answer is most removed from what was discussed? Confirming that each wrong answer is actually discussed might be necessary, but it's going to be time consuming. So, before I do that, I want to do a quick scan to see if there are any obviously questionable answers, and (E) jumps out. The entire passage was pretty much about the problems of organicism, and I don't remember reading too much about the advantages of the analytic method. I do one quick scan through the passage to make sure I haven't missed anything, and I haven't. (E) is not related to anything that is discussed, and is therefore the correct answer.

24 READING COMPREHENSION practice set

In the last two lessons, we've discussed the underlying structure of LSAT Reading Comprehension, as well as the reading strategies that align most effectively with the challenges that the section presents. In this lesson and the next, we'll focus on putting into practice that understanding and the strategies. First, let's do a quick review.

Reading is a fundamental part of all aspects of professional life. Our reading ability is comprised of numerous facets, and our reading strength is commonly dependent on how well our abilities and mindset align with the specific reading task presented.

LSAT Reading Comprehension is not designed to test all of your reading skills, nor is it designed to gauge some vague or general set of reading skills. LSAT Reading Comprehension is primarily designed to gauge a very narrow and specific aspect of your overall reading ability—your ability to read for reasoning structure. We can define this as your ability to see, as you read, what the main priorities of the author are, and how all components of a passage relate to these main points.

Many Reading Comprehension questions are broad by design—of the five to eight questions you see per passage, it's not uncommon to have three or four that you can answer off of a general understanding of the passage as a whole. Certain questions will ask about very specific components of a passage, but commonly these questions will also be about reasoning structure—that is, the questions will be designed to test your understanding of the role that this specific component plays in the bigger scheme of things.

Though many of us are used to reading all day long every day, few of us are used to being tested on our reading ability or to reading under pressure. In this unique context, many of us have an instinct to try and focus more, and often this results in paying too much attention to each word. This will be detrimental on the exam, because these instincts will force you to think of the trees, instead of the forest. Thinking of the passage as a set of numerous details, and trying to answer questions in terms of these details, makes the section far harder than it needs to be. A solid understanding of the passage as a whole is always the key to making questions easier and more obvious. An understanding of your task, as well as plenty of experience at reading LSAT passages in LSAT-like conditions, will ensure that you represent your reading abilities at their best.

Question Strategy Basics

In the next swatch of Reading Comprehension lessons, we will carefully break down the different types of questions that you can expect to see in this section. For now, let's just have a very quick and basic discussion about the main things you want to be thinking about as you approach and answer questions.

As with Logical Reasoning and Logic Games, most test takers underestimate the significance of the question stem—that is, they focus on the passage and the answers, but not the question being asked. You want to think of your read, the question stem, and the answer choices as pieces to a jigsaw puzzle; the question stem is the middle of those three pieces—without it, it becomes much more difficult to match your understanding of the passage with the five answer choices.

Make it a habit to think carefully about the question stem, and to use it to **anticipate**[1] what you will see in the answer choices. If you keep practicing this, you will get better and better at recognizing right answers when you see them. More importantly, you will get better and better at predicting the design of the incorrect answer choices; this will allow you to eliminate them with far more accuracy and confidence.

Many questions test your general understanding of the passage as a whole. These questions are based on two interrelated issues—the author's reasons for writing the passage, and the structural organization of the passage. Certain questions will be phrased in terms of the former, and some in terms of the latter, but these two things go hand in hand and most questions require some understanding of both concepts. For general questions, you should expect to have a rough sense of what the right answer should look like before you look at the choices. These questions will, in general, have three or four obviously wrong choices that can be eliminated quickly. It will likely not be necessary for you to return to the text before you review the answers, but you will typically have to go back to the text to confirm the correct answer, or to choose between two attractive answers. Right answers will commonly be a bit broad or vague, or in other ways less than ideal, but nevertheless not false, and the best of the available choices.

Other questions test your understanding of specific parts of the passage, ranging from individual words to clauses to sentences to paragraphs. Some of these specific questions will tell you where the component in question is,[2] others will give you no sense of where the specific information is,[3] and still others will give you *hints* as to where the needed information is.[4] For the first of these situations, you should go back to the text referenced and read it (as well as what is around it) before going into the answer choices. For the second of these situations, you will have to wait until you get down to a couple of attractive choices before going into the text. For the last of these situations, the challenge of identifying the relevant text will typically be the key challenge of that question, and so ideally you want to do whatever you can to find that text and understand it before going into the answer choices. As always, you want to eliminate wrong choices before confirming the correct choice. Right answers should always be confirmed, word for word, with the text.

1. Anticipating is an important component of effective reading style, and it's an important part of answering questions. Top test takers predict elements they are likely to see in the right answer, and they use their predictions to increase speed and not get tricked by wrong trains of thought. However, using anticipation goes hand in hand with the ability to remain flexible. Sometimes the right answer will be very different from what you imagined, and you have to have a strong enough sense of the passage and the question stem, and a flexible enough sense about what you've anticipated, in order to recognize this right answer when this turns out to be the case.

2. example: "The author uses the word "degree" in line 6 in reference to..."

3. example: "The passage discusses which of the following?"

4. example: "According to the passage, proponents of the new era theory would probably agree that..."

Drill Passage One

Directions below

Until the 1980s, most scientists believed that noncatastrophic geological processes caused the extinction of dinosaurs that occurred approximately 66 million years ago, at the end of the Cretaceous period. Geologists argued that a dramatic drop in sea level coincided with the extinction of the dinosaurs and could have caused the climatic changes that resulted in this extinction as well as the extinction of many ocean species.

This view was seriously challenged in the 1980s by the discovery of large amounts of iridium in a layer of clay deposited at the end of the Cretaceous period. Because iridium is extremely rare in rocks on the Earth's surface but common in meteorites, researchers theorized that it was the impact of a large meteorite that dramatically changed the Earth's climate and thus triggered the extinction of the dinosaurs.

Currently available evidence, however, offers more support for a new theory, the volcanic-eruption theory. A vast eruption of lava in India coincided with the extinctions that occurred at the end of the Cretaceous period, and the release of carbon dioxide from this episode of volcanism could have caused the climatic change responsible for the demise of the dinosaurs. Such outpourings of lava are caused by instability in the lowest layer of the Earth's mantle, located just above the Earth's core. As the rock that constitutes this layer is heated by the Earth's core, it becomes less dense and portions of it eventually escape upward as blobs of molten rock, called "diapirs," that can, under certain circumstances, erupt violently through the Earth's crust.

Moreover, the volcanic eruption theory, like the impact theory, accounts for the presence of iridium in sedimentary deposits; it also explains matters that the meteorite-impact theory does not. Although iridium is extremely rare on the Earth's surface, the lower regions of the Earth's mantle have roughly the same composition as meteorites and contain large amounts of iridium, which in the case of a diapir eruption would probably be emitted as iridium hexafluoride, a gas that would disperse more uniformly in the atmosphere than the iridium-containing matter thrown out from a meteorite impact. In addition, the volcanic eruption theory may explain why the end of the Cretaceous period was marked by a gradual change in sea level. Fossil records indicate that for several hundred thousand years prior to the relatively sudden disappearance of the dinosaurs, the level of the sea gradually fell, causing many marine organisms to die out. This change in sea level might well have been the result of a distortion in the Earth's surface that resulted from the movement of diapirs upward toward the Earth's crust, and the more cataclysmic extinction of the dinosaurs could have resulted from the explosive volcanism that occurred as material from the diapirs erupted onto the Earth's surface.

Practice Test 15, Passage 1

4. In the passage, the author is primarily concerned with doing which one of the following?

(A) describing three theories and explaining why the latest of these appears to be the best of the three
(B) attacking the assumptions inherent in theories that until the 1980s had been largely accepted by geologists
(C) outlining the inadequacies of three different explanations of the same phenomenon
(D) providing concrete examples in support of the more general assertion that theories must often be revised in light of new evidence
(E) citing evidence that appears to confirm the skepticism of geologists regarding a view held prior to the 1980s

7. Which one of the following, if true, would cast the most doubt on the theory described in the last paragraph of the passage?

(A) Fragments of meteorites that have struck the Earth are examined and found to have only minuscule amounts of iridium hexafluoride trapped inside of them.
(B) Most diapir eruptions in the geological history of the Earth have been similar in size to the one that occurred in India at the end of the Cretaceous period and have not been succeeded by periods of climatic change.
(C) There have been several periods in the geological history of the Earth, before and after the Cretaceous period, during which large numbers of marine species have perished.
(D) The frequency with which meteorites struck the Earth was higher at the end of the Cretaceous period than at the beginning of the period.
(E) Marine species tend to be much more vulnerable to extinction when exposed to a dramatic and relatively sudden change in sea level than when they are exposed to a gradual change in sea level similar to the one that preceded the extinction of the dinosaurs.

Directions:

On this page and on the pages that follow are four passages that have appeared on past LSATs. Each passage is accompanied by two questions. Read the passages as if you had the full set of questions attached, then do your best to answer the two questions. Time yourself, and do try to push the pace as much as you feel comfortable pushing it, but at this point worry less about time and more about process and accuracy. Solutions follow each passage.

Passage One Solutions

SUMMARY

P1 - **One main idea (popular until the 1980s)—that non-catastrophic processes caused extinction of dinosaurs.** Then we are given future explanation of this theory—the non-catastrophic process is a dramatic drop in sea level.

P2 - Evidence that challenges that idea—unusual levels of iridium. **Second main idea based on this evidence—meteorite.**

P3 - Current evidence leads to **a third main idea—volcanic eruption theory.** More information about an eruption in India. Explanation of how such an eruption happens.

P4 - More support for third theory—evidence from second paragraph happens to support this idea as well. Explanation of how this happens. Evidence from first paragraph happens to support this idea as well.

COMMENTARY

This is a classic example of the type of passage that can seem far more difficult at the beginning of your studies that it will (hopefully) at the end of your studies. This is a difficult passage to get through, and the reason for that is because the information is scientific and complicated, and because the sentences are dense and oftentimes multifaceted.

However, the reasoning structure of the passage is abundantly clear, and reasoning structure is what we really care about. Therefore, even though many of the sentences are difficult to understand, I would consider this an easier passage, because the reasoning structure is not difficult to understand.

The first sentence gives us, right away, a main idea, and it also gives us a clear sense that this is an opinion that is going to get dismissed—the "until the 1980s" tells us that. It's clear how the next sentence and the one that begins the second paragraph relate to this first main idea, and by the time we get the second hypothesis—the meteorite idea—we should be expecting it.

The third paragraph—and the third theory it presents—is a bit of a twist, but it's certainly easy enough to understand, and it's clear to see that what follows, as complicated as it is, is meant to support and give us more information about this third idea. The author also does a nice job of bringing back information presented in the first and second paragraphs and repurposing it as support for the volcanic eruption theory.

THE QUESTIONS

4. (A) is correct

The question is about the passage as a whole, and before we go into the answer choices, we should have a very clear sense of what to look for—an answer that discusses various theories for dinosaur extinction, and gives some indication as to the author's preference for the third theory.

(A) seems like the perfect answer, but to be safe we should wait to select it. (B) gives a partial description of the passage (mostly just the second paragraph) but doesn't represent the passage as a whole. (C) does not accurately represent the author's intention. (D) is much broader than the passage itself. (E) represents part of the passage, but does a poor job of describing the passage as a whole. We go back to (A) and double-check each word one last time—it looks good.

7. (B) is correct

This is a rare type of question in Reading Comprehension—one that requires us to use some of the same critical reasoning skills that many Logical Reasoning questions do. We are asked to weaken the theory presented in the third paragraph—that means we are looking for an answer that gives us some reason to doubt the volcanic eruption theory.

(A) would impact the second theory, but doesn't impact the third. (B) is attractive because we know that resultant climate change is indeed an important part of our theory—let's leave it. (C) tells us nothing about this particular situation and can be quickly eliminated. Frequency of meteor strikes is irrelevant to the passage (you may need to do a quick scan to double-check this), and so (D) can be eliminated quickly. Finally, (E) gives us a comparative that doesn't hurt or hinder the idea that gradual change can still cause extinction.

Let's go back to (B), a tough answer choice to understand, to review it one more time, and to compare it to the text. (B) tells us that most volcanic eruptions like the one the author discusses do not cause significant climate change. Why is this important? Because the author proposes in the final paragraph that the dinosaur extinction could have resulted from the volcanic explosion, and in the third paragraph (it's cruel that the question stem only discusses the fourth paragraph when the third paragraph is also relevant to the theory in question) he mentions how the volcanic explosion caused the extinction—by changing climate. If (B) is true, it weakens the idea that this did indeed happen.

Drill Passage Two

In 1964 the United States federal government began attempts to eliminate racial discrimination in employment and wages: the United States Congress enacted Title VII of the Civil Rights Act, prohibiting employers from making employment decisions on the basis of race. In 1965 President Johnson issued Executive Order 11,246, which prohibited discrimination by United States government contractors and emphasized direct monitoring of minority representation in contractors' work forces.

Nonetheless, proponents of the "continuous change" hypothesis believe that United States federal law had a marginal impact on the economic progress made by black people in the United States between 1940 and 1975. Instead they emphasize slowly evolving historical forces, such as longterm trends in education that improved segregated schools for black students during the 1940s and were operative during and after the 1960s. They argue that as the quality of black schools improved relative to that of white schools, the earning potential of those attending black schools increased relative to the earning potential of those attending white schools.

However, there is no direct evidence linking increased quality of underfunded segregated black schools to these improvements in earning potential. In fact, even the evidence on relative schooling quality is ambiguous. Although in the mid-1940s term length at black schools was approaching that in white schools, the rapid growth in another important measure of school quality, school expenditures, may be explained by increases in teachers' salaries, and, historically, such increases have not necessarily increased school quality. Finally, black individuals in all age groups, even those who had been educated at segregated schools before the 1940s, experienced post-1960 increases in their earning potential. If improvements in the quality of schooling were an important determinant of increased returns, only those workers who could have benefited from enhanced school quality should have received higher returns. The relative improvement in the earning potential of educated black people of all age groups in the United States is more consistent with a decline in employment discrimination.

An additional problem for continuity theorists is how to explain the rapid acceleration of black economic progress in the United States after 1964. Education alone cannot account for the rate of change. Rather, the coincidence of increased United States government antidiscrimination pressure in the mid-1960s with the acceleration in the rate of black economic progress beginning in 1965 argues against the continuity theorists' view. True, correlating federal intervention and the acceleration of black economic progress might be incorrect. One could argue that changing attitudes about employment discrimination sparked both the adoption of new federal policies and the rapid acceleration in black economic progress. Indeed, the shift in national attitude that made possible the enactment of Title VII was in part produced by the persistence of racial discrimination in the southern United States. However, the fact that the law had its greatest effect in the South, in spite of the vigorous resistance of many Southern leaders, suggests its importance for black economic progress.

Practice Test 15, Passage 4

22. According to the passage, Title VII of the 1964 Civil Rights Act differs from Executive Order 11,246 in that Title VII

(A) monitors employers to ensure minority representation
(B) assesses the work forces of government contractors
(C) eliminates discriminatory disparities in wages
(D) focuses on determining minority representation in government
(E) governs hiring practices in a wider variety of workplaces

27. The "continuous change" hypothesis, as it is presented in the passage, can best be applied to which one of the following situations?

(A) Homes are found for many low-income families because the government funds a project to build subsidized housing in an economically depressed area.
(B) A depressed economy does not cause the closing of small businesses in a local community because the government provides special grants to aid these businesses.
(C) Unemployed people are able to obtain jobs because private contractors receive tax incentives for constructing office buildings in an area with a high unemployment rate.
(D) A housing shortage is remedied because the changing state of the economy permits private investors to finance construction in a depressed area.
(E) A community's sanitation needs are met because neighborhood organizations lobby aggressively for government assistance.

Passage Two Solutions

SUMMARY

P1 - background—Government began to enact laws starting in 1964 to eliminate racial discrimination at work.

P2 - Main point—**"continuous change" hypothesis says gradual societal change, such as improving education, is responsible for economic progress of black people**. Expansion of that idea.

P3 - Lots of evidence against that continuous change idea.

P4 - More evidence against continuous change. Same evidence used to support **second main idea—that government laws had impact—author's point**. Possible objections against, then rebuttal.

COMMENTARY

This passage has all of the standard components of a typical passage—background information, two contrasting main points, evidence that supports and opposes those main points, and an author's opinion. The slight twist here is that the order in which the information is presented is a bit unexpected and choppy.

We start with a paragraph of background information, and then an opinion that dismisses the significance of that background information, then reasons that oppose that opinion, and then a second opinion—one the author supports—that ties into that original background information. This passage would have been markedly easier had the author not waited until the fourth paragraph to give his opinion.

The unexpected organizational structure lends itself to a bit of a wild ride during the reading process, but the reasoning structure of this passage is quite simple to understand after the fact.

THE QUESTIONS

22. (E) is correct

This question is simply testing our ability to read information correctly. It helps to know that everything that is relevant to answering the question will be contained in the first two paragraphs, and you certainly want to go back and read them again before looking at the answers.

The wrong choices go beyond what is stated in the text. (A) is tempting, but it's not clear that Title VII includes some monitoring system, and it's also unclear whether the Executive Order required monitoring *by employers.* (B) is tempting but gets the two reversed. (C) is overly broad and relates somewhat to both elements. (D) skews the discussion—prohibiting discrimination is not quite the same thing as "determining," and representation in government is not directly discussed.

(E) is a basic answer that can't be refuted. If it had been presented first (instead of last), chances are this question would have felt much easier. In any case, we know that Title VII related to all employers, and the Executive Order specifically to government contractors.

27. (D) is correct

What we know about the continuous change folks is that they dismiss the impact of government intervention, and they emphasize the significance of gradual societal change. Questions that test your understanding of one opinion will commonly have many wrong answers that align with the opposite, or contrasting, opinion (because the test writers need to create answers that are provably wrong) and that's the case here.

If you went into the answer choices thinking "right answer—slow change, wrong answers—government intervention," the four wrong answers—(A), (B), (C), and (E) would have all jumped out as being on the wrong side of the fence.

Drill Passage Three

Until recently, it was thought that the Cherokee, a Native American tribe, were compelled to assimilate Euro American culture during the 1820s. During that decade, it was supposed, White missionaries arrived and, together with their part Cherokee intermediaries, imposed the benefits of "civilization" on Cherokee tribes while the United States government actively promoted acculturalization by encouraging the Cherokee to switch from hunting to settled agriculture. This view was based on the assumption that the end of a Native American group's economic and political autonomy would automatically mean the end of its cultural autonomy as well.

William G. McLoughlin has recently argued that not only did Cherokee culture flourish during and after the 1820s, but the Cherokee themselves actively and continually reshaped their culture. Missionaries did have a decisive impact during these years, he argues, but that impact was far from what it was intended to be. The missionaries' tendency to cater to the interests of an acculturating part-Cherokee elite (who comprised the bulk of their converts) at the expense of the more traditionalist full-Cherokee majority created great intratribal tensions. As the elite initiated reforms designed to legitimize their own and the Cherokee Nation's place in the new republic of the United States, antimission Cherokee reacted by fostering revivals of traditional religious beliefs and practices. However, these revivals did not, according to McLoughlin, undermine the elitist reforms, but supplemented them with popular, traditionalist counterparts.

Traditionalist Cherokee did not reject the elitist reforms outright, McLoughlin argues, simply because they recognized that there was more than one way to use the skills the missionaries could provide them. As he quotes one group as saying, "We want our children to learn English so that the White man cannot cheat us." Many traditionalist Cherokee welcomed the missionaries for another reason: they perceived that it would be useful to have White allies. In the end, McLoughlin asserts, most members of the Cherokee council, including traditionalists, supported a move which preserved many of the reforms of the part-Cherokee elite but limited the activities and influence of the missionaries and other White settlers. According to McLoughlin, the identity and culture that resulted were distinctively Cherokee, yet reflected the larger political and social setting in which they flourished.

Because his work concentrates on the nineteenth century, McLoughlin unfortunately overlooks earlier sources of influence, such as eighteenth century White resident traders and neighbors, thus obscuring the relative impact of the missionaries of the 1820s in contributing to both acculturalization and resistance to it among the Cherokee. However, McLoughlin is undoubtedly correct in recognizing that culture is an ongoing process rather than a static entity, and he has made a significant contribution to our understanding of how Cherokee culture changed while retaining its essential identity after confronting the missionaries.

Practice Test 18, Passage 3

17. Which one of the following statements regarding the Cherokee council in the 1820s can be inferred from the passage?

(A) Members of the Cherokee council were elected democratically by the entire Cherokee Nation.
(B) In order for a policy to come into effect for the Cherokee Nation, it had to have been approved by a unanimous vote of the Cherokee council.
(C) Despite the fact that the Cherokee were dominated politically and economically by the United States in the 1820s, the Cherokee council was able to override policies set by the United States government.
(D) Though it did not have complete autonomy in governing the Cherokee Nation, it was able to set some policies affecting the activities of White people living in tribal areas.
(E) The proportions of traditionalist and acculturating Cherokee in the Cherokee council were determined by the proportions of traditionalist and acculturating Cherokee in the Cherokee population.

19. According to the passage, McLoughlin cites which one of the following as a contributing factor in the revival of traditional religious beliefs among the Cherokee in the 1820s?

(A) Missionaries were gaining converts at an increasing rate as the 1820s progressed.
(B) The traditionalist Cherokee majority thought that most of the reforms initiated by the missionaries' converts would corrupt Cherokee culture.
(C) Missionaries unintentionally created conflict among the Cherokee by favoring the interests of the acculturating elite at the expense of the more traditionalist majority.
(D) Traditionalist Cherokee recognized that only some of the reforms instituted by a small Cherokee elite would be beneficial to all Cherokee.
(E) A small group of Cherokee converted by missionaries attempted to institute reforms designed to acquire political supremacy for themselves in the Cherokee council.

Passage Three Solutions

SUMMARY

P1 - first main point—**until recently, thought Cherokee were "compelled" to assimilate to white culture in the 1820s.** More detail about this.

P2 - contrasting second main point—**McLoughlin counters that Cherokee culture flourished and evolved after 1820s.** More detail about why and how.

P3 - More specific expansion of McLoughlin's points.

P4 - Author's opinion on the debate—he points out a negative of McLouglin's work—that he overlooks earlier history—then the positive—his emphasis on culture as evolving process, and amount McLoughlin has added to understanding.

COMMENTARY

This passage starts out as we might expect, then takes a somewhat unique turn in the final paragraph. The first paragraph sets up a central opinion, and the paragraph gives us many clues ("Until recently," "it was supposed") that tip us off that this opinion will be countered by a new (probably more correct) one. The second paragraph then gives us the new opinion, and the third paragraph expands on it in ways we would expect.

The fourth paragraph is a bit surprising. It has seemed, up to this point, that the author is likely in agreement with McLoughlin; however, in the final paragraph, the author chooses to point out a significant problem with McLoughlin's work, and only gives a very general endorsement of it.

THE QUESTIONS

17. (D) is correct

There are a couple of things to note right away about the question stem. For one, it is asking about the Cherokee council, a very specific entity, rather than any other Cherokee group that was discussed in the passage. Secondly, it asks us for an answer that we can infer—we can expect, thus, that the right answer will be one that does not match the text exactly, but rather one we have to be able to validate using the text.

The relevant information comes in the middle of the third paragraph, when we are told that the council supported many changes of the elite, but limited the activities of white settlers. You want to make sure to identify and reread the relevant text before evaluating the answers.

We don't have any relevant information to validate (A), (B) or (E), and those can be eliminated quickly. (C) is tempting, but difficult to justify with the text—we don't have specific proof that the council was able to override policies set by the United States government. We can eliminate (C).

That leaves us with (D), the correct answer. The fact that the council was able to limit activities is enough to allow us to justify the answer.

19. (C) is correct

This is a different sort of question than #17 was, in that we are asked to find an answer that is true "according to the passage." What that means is that one answer is specifically discussed in the passage, and the other four are not. Before going into the answers, we quickly read through the end of the second paragraph, which talks most specifically about the revival, but because this was a central topic we want to keep an open mind about which paragraph the relevant information might come from.

(A), (B), (D), and (E) are not specifically discussed by the passage. (C) *is* specifically discussed at the beginning of the second paragraph—we are told that the outcome was far from what it was intended to be, and the impact we are told of is almost word-for-word what is stated in the text. Therefore (C) is correct.

Drill Passage Four

In the history of nineteenth century landscape painting in the United States, the Luminists are distinguished by their focus on atmosphere and light. The accepted view of Luminist paintings is that they are basically spiritual and imply a tranquil mysticism that contrasts with earlier American artists' concept of nature as dynamic and energetic. According to this view, the Luminist atmosphere, characterized by "pure and constant light," guides the onlooker toward a lucid transcendentalism, an idealized vision of the world.

What this view fails to do is to identify the true significance of this transcendental atmosphere in Luminist paintings. The prosaic factors that are revealed by a closer examination of these works suggest that the glowing appearance of nature in Luminism is actually a sign of nature's domestication, its adaptation to human use. The idealized Luminist atmosphere thus seems to convey, not an intensification of human responses to nature, but rather a muting of those emotions, like awe and fear, which untamed nature elicits.

One critic, in describing the spiritual quality of harbor scenes by Fitz Hugh Lane, an important Luminist, carefully notes that "at the peak of Luminist development in the 1850s and 1860s, spiritualism in America was extremely widespread." It is also true, however, that the 1850s and 1860s were a time of trade expansion. From 1848 until his death in 1865, Lane lived in a house with a view of the harbor of Gloucester, Massachusetts, and he made short trips to Maine, New York, Baltimore, and probably Puerto Rico. In all of these places he painted the harbors with their ships the instruments of expanding trade. Lane usually depicts places like New York Harbor, with ships at anchor, but even when he depicts more remote, less commercially active harbors, nature appears pastoral and domesticated rather than primitive or unexplored. The ships, rather than the surrounding landscapes including the sea are generally the active element in his pictures. For Lane the sea is, in effect, a canal or a trade route for commercial activity, not a free, powerful element, as it is in the early pictures of his predecessor, Cole. For Lane nature is subdued, even when storms are approaching; thus, the sea is always a viable highway for the transport of goods. In sum, I consider Lane's sea simply an environment for human activity nature no longer inviolate. The luminescence that Lane paints symbolizes nature's humbled state, for the light itself is as docile as the Luminist sea, and its tranquillity in a sense signifies no more than good conditions on the highway to progress. Progress, probably even more than transcendence, is the secret message of Luminism. In a sense, Luminist pictures are an ideological justification of the atmosphere necessary for business, if also an exaggerated, idealistic rendering of that atmosphere.

Practice Test 18, Passage 4

22. The passage is primarily concerned with discussing

(A) the importance of religion to the art of a particular period
(B) the way one artist's work illustrates a tradition of painting
(C) the significance of the sea in one artist's work
(D) differences in the treatment of nature as a more active or a less active force
(E) variations in the artistic treatment of light among nineteenth century landscape painters

27. The author's primary purpose is to

(A) refute a new theory
(B) replace an inadequate analysis
(C) summarize current critics' attitudes
(D) support another critic's evaluation
(E) describe the history of a misinterpretation

Passage Four Solutions

SUMMARY

P1 - first main point—**accepted view of Luminist paintings is that they are spiritual and tranquil—guides onlooker toward an idealized vision of the world.**

P2 - contrasting second main point/author opinion—**look of Luminist paintings actually a sign that man has domesticated nature for our use.**

P3 - examines one context—harbor scenes by Fitz Hugh Lane—from both perspectives. Mostly focuses on relating paintings to second main point.

COMMENTARY

This is another passage that presents two opposing opinions. In this case, the author makes it quite clear which of the opinions matches his, and spends the majority of the text discussing the subject—Luminist paintings—from his perspective.

Notice that both questions ask us about the passage as a whole, and are, in many ways, quite similar. And yet look at the correct answers—they are, though both in many ways predictable, quite different from one another. You should expect to anticipate characteristics of right answers, but you would be foolish to expect that you can predict exactly what will be in a right answer, for there are many different ways they can go about presenting the relevant information. As we'll discuss in further detail later, this is one of the many reasons why we want to make sure to develop our wrong answer elimination processes. By attacking the question from both directions—eliminating wrong choices and selecting right ones—we give ourselves the best chance to be accurate.

THE QUESTIONS

22. (B) is correct

We know that the passage spends about half the space discussing the two contrasting views on Luminists, and about half the space discussing how the work of one artist can be interpreted per these two views. With that in mind, let's take a look at the answer choices...

(A) does not reflect any of the main points of the passage and can be eliminated. (B) represents a good deal of the passage, but not all—let's leave it. (C) is even narrower in scope—the sea is not the main purpose of the passage—we can eliminate (C). (D) is tempting in that it touches on the main points the author makes, but it does not inform us specifically about Luminists, or the use of Fitz Hugh Lane as a representative of Luminists. We can eliminate (D). (E) is far too narrow in scope and can be quickly eliminated.

That leaves us with only (B). Thinking about the passage in terms of (B), it works—The first paragraphs serve to give us what we need to understand and think about a tradition in painting, and the last one is about how one artist relates to this tradition. (B) is correct.

27. (B) is correct

This question is about the passage as a whole, as the last one was, and I'll go into the answers thinking about the same things: the two contrasting views on Luminists, and how the work of one artist can be interpreted per these two views.

The author is not trying to refute a new theory, but rather an accepted one, so we can eliminate (A). (B) sounds good—the "accepted" view is the inadequate analysis that is being replaced, and the author spends the entire passing trying to show why it should be replaced. Let's leave (B). The author's purpose is not to summarize current critical attitudes, and so we can eliminate (C). The author does not support another critic, but rather refutes the only critic mentioned specifically, so we can eliminate (D). Finally, the passage does not give us a history of how Luminist paintings were misinterpreted, and so we can eliminate (E).

(B) is the only attractive answer we saw, the last one standing, and the correct choice. Again, notice how different the two right answers were from one another, and also how they both do accurately describe the passage. Top scorers have a well-rounded understanding of the passage, and strong wrong-answer elimination techniques.

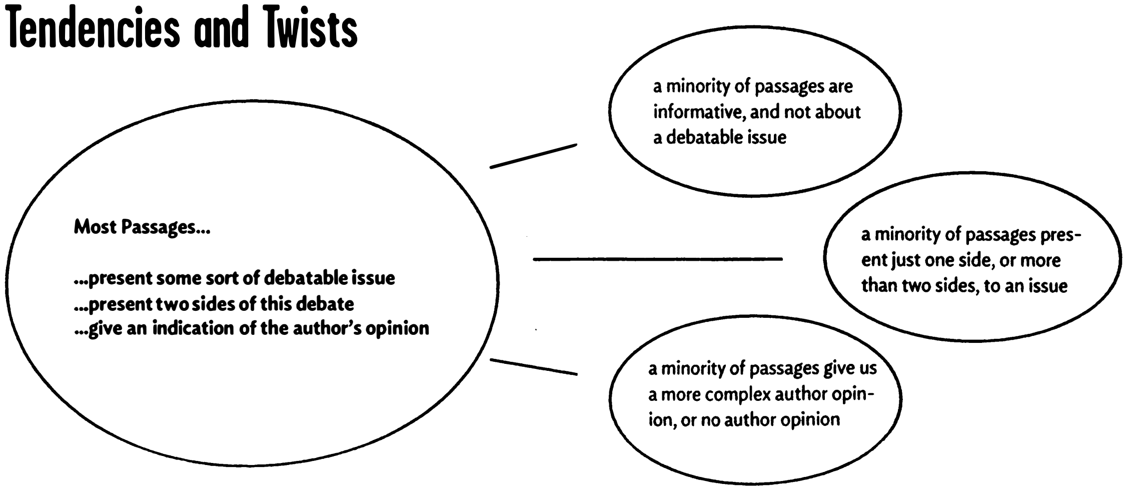
25 READING COMPREHENSION practice set ii

Now that you've had a chance to get a few passages under your belt, hopefully you feel that you are developing a good sense of the common reasoning structures that underlie all passages, and hopefully you are seeing the direct relationship between this reasoning structure and the design of the questions the test writers choose to ask.

If we take a big picture look at all of the passages that have appeared on the LSAT, strip them of their unique subject matter and only focus on reasoning structure, the commonality in that reasoning structure becomes clear. We can see that all LSAT passages are riffs off of a few basic design templates.

A great way to think about LSAT passages as a whole is in terms of defaults and modifications. Most passages present two contrasting main points, and so we want to think of that as the default. A minority of passages present maybe just one point, or more than two points. We can think of these as the modifications. Most passages align the author's opinion with one main point or the other—this is our default. A minority will lack an author's opinion, or present a more sophisticated version that doesn't align with either main point. Most passages will present subjective main points that are clearly opinions. A minority will be written in an objective fashion. You want to have a very clear sense of expectations, and you want to be able to recognize when a passage fits right into that sweet spot. You also want to have a clear understanding of the limited ways in which certain passages stray from that norm. Thinking of passages in terms of general tendencies and common twists is a great way to develop your big picture understanding.

Tendencies and Twists



PASSAGE STRUCTURE: VARIATIONS ON A THEME

Let's imagine that the section was going to include an essay on the health effects of eating popcorn. What kind of passage structures might we expect? Here are six examples of the types of passage structures that we could see. Note that if we replace the subject of eating popcorn with another subject, no matter how complex or confusing the new subject might be, it wouldn't effect the ways in which the reasoning of the passage can be structured.

popcorn isn't healthy

support

counter

popcorn is healthy

author opinion (healthy)

---

background

popcorn is healthy (stated objectively)

support

consequences

---

popcorn is healthy

support

support

counter

popcorn isn't healthy

author opinion—part healthy, part not

support

---

background

popcorn is unhealthy

popcorn is healthy

contrasting support for both sides

author opinion (healthy)

support

---

popcorn isn't healthy

support

popcorn is healthy (author opinion)

support

analogous situation

---

background—history of popcorn

background—science of popcorn

issue: healthy vs unhealthy

author opinion: healthy

support connected to paragraph 2

Drill Passage One

Directions: Here are two more passages for you to practice with. Try to read and solve both questions for each passage in five minutes or less.

Three kinds of study have been performed on Byron. There is the biographical study—the very valuable examination of Byron's psychology and the events in his life; Escarpit's 1958 work is an example of this kind of study, and biographers to this day continue to speculate about Byron's life. Equally valuable is the study of Byron as a figure important in the history of ideas; Russell and Praz have written studies of this kind. Finally, there are studies that primarily consider Byron's poetry. Such literary studies are valuable, however, only when they avoid concentrating solely on analyzing the verbal shadings of Byron's poetry to the exclusion of any discussion of biographical considerations. A study with such a concentration would be of questionable value because Byron's poetry, for the most part, is simply not a poetry of subtle verbal meanings. Rather, on the whole, Byron's poems record the emotional pressure of certain moments in his life. I believe we cannot often read a poem of Byron's, as we often can one of Shakespeare's, without wondering what events or circumstances in his life prompted him to write it.

No doubt the fact that most of Byron's poems cannot be convincingly read as subtle verbal creations indicates that Byron is not a "great" poet. It must be admitted too that Byron's literary craftsmanship is irregular and often his temperament disrupts even his lax literary method (although the result, an absence of method, has a significant purpose: it functions as a rebuke to a cosmos that Byron feels he cannot understand). If Byron is not a "great" poet, his poetry is nonetheless of extraordinary interest to us because of the pleasure it gives us. Our main pleasure in reading Byron's poetry is the contact with a singular personality. Reading his work gives us illumination—self-understanding—after we have seen our weaknesses and aspirations mirrored in the personality we usually find in the poems. Anyone who thinks that this kind of illumination is not a genuine reason for reading a poet should think carefully about why we read Donne's sonnets.

It is Byron and Byron's idea of himself that hold his work together (and that enthralled early nineteenth-century Europe). Different characters speak in his poems, but finally it is usually he himself who is speaking: a far cry from the impersonal poet Keats. Byron's poetry alludes to Greek and Roman myth in the context of contemporary affairs, but his work remains generally of a piece because of his close presence in the poetry. In sum, the poetry is a shrewd personal performance, and to shut out Byron the man is to fabricate a work of pseudo-criticism.

Practice Test 16, Passage 1

5. The author mentions that "Byron's literary craftsmanship is irregular" (lines 27-28) *(second sentence of second paragraph)* most probably in order to

(A) contrast Byron's poetic skill with that of Shakespeare
(B) dismiss craftsmanship as a standard by which to judge poets
(C) offer another reason why Byron is not a "great" poet
(D) point out a negative consequence of Byron's belief that the cosmos is incomprehensible
(E) indicate the most-often-cited explanation of why Byron's poetry lacks subtle verbal nuances

7. The author indicates which one of the following about biographers' speculation concerning Byron's life?

(A) Such speculation began in earnest with Escarpit's study.
(B) Such speculation continues today.
(C) Such speculation is less important than consideration of Byron's poetry.
(D) Such speculation has not given us a satisfactory sense of Byron's life.
(E) Such speculation has been carried out despite the objections of literary critics.

Passage One Solutions

SUMMARY

P1 - background—three main ways to study Byron. Probable main point has to do with the third way to study Byron: **a study that concentrates on writing style of his poetry but not his life is not valuable.**

P2 - continues on with the point at the end of the first paragraph--- he is not a great poet because of his technical skill. Still, his poetry is interesting because of what it shows of his personality.

P3 - finalizes the same train of thought. The author concludes that **because his poetry is so personal, legitimate criticism of Byron's poetry cannot exclude study of "Byron the man."**

COMMENTARY

Both this passage and the next are meant to be examples of somewhat unpredictable (twists and turns!) passage structure. The passage begins as if it might compare and contrast the three different types of studies. However, the first two end up serving as background, then springboard us into the main point about studies that focus just on the techniques in Byron's poetry. The first strong hint we get that this is the main point is the sentence that begins, "Such literary studies are valuable..." This tells us that the author is giving an opinion about that specific type of study, and the author would not give an opinion unless the issue was important.

Still, the second paragraph could have very well returned to discussing the other two types of studies, and the author could have perhaps given his opinions on those. It doesn't. Instead, it continues on to discuss the main point we highlighted, as does the third paragraph.

THE QUESTIONS

5. (C) is correct.

Just before that statement, the author mentioned that he believes Byron is not a "great" poet. The "great" in quotations indicates that he is thinking of a unique meaning for that word, and (C) matches that specific meaning. The sentence involving the part in question also includes the word "too," which helps us validate the statement "another reason."

What makes this question a bit easier is that the wrong answers are all very clearly wrong, and you would have done yourself a great favor if you took the small amount of time necessary to eliminate them all. (A) relates to a different part of the passage, and Shakespeare is not central to the primary themes, so we can quickly eliminate (A). (B) is too general—we're only talking about Byron here. The author hasn't expressed that this characteristic is a negative (quite the opposite), so we can eliminate (D). (E) includes ideas ("most often cited") we can't validate, and can also be easily eliminated.

7. (B) is correct.

Note the wording—"the author indicates"—that tells us that the right answer is something that is specifically mentioned in the text. In this case, the second sentence of the first paragraph gives us justification for (B).

For a detail question such as this one, ideally, you want to be able to read the text in question before evaluating the answer choices in depth. You may have noticed the words "biographer's speculation" in the question stem and gone into the text to find them right away, or maybe you noticed the importance of the word "speculation" in the answer choices. In any case, finding that sentence about speculation first, then evaluating the answers, is much easier than being tempted by each answer and having to check each against the text.

Detail questions are one of the few question types for which it is sometimes not completely necessary to eliminate wrong choices before selecting a right one. Still, it doesn't hurt to take a quick look through all of the wrongs just in case there isn't another attractive choice. (A) is not mentioned and it's easy to see that in the sentence we just used to prove (B). (C), (D), and (E) do not come too close to matching the substance or themes of the text, and so are not particularly tempting. Knowing the other answers are wrong helps us be 100% sure that (B) is right.

Drill Passage Two

When catastrophe strikes, analysts typically blame some combination of powerful mechanisms. An earthquake is traced to an immense instability along a fault line; a stock market crash is blamed on the destabilizing effect of computer trading. These explanations may well be correct. But systems as large and complicated as the Earth's crust or the stock market can break down not only under the force of a mighty blow but also at the drop of a pin. In a large interactive system, a minor event can start a chain reaction that leads to a catastrophe.

Traditionally, investigators have analyzed large interactive systems in the same way they analyze small orderly systems, mainly because the methods developed for small systems have proved so successful. They believed they could predict the behavior of a large interactive system by studying its elements separately and by analyzing its component mechanisms individually. For lack of a better theory, they assumed that in large interactive systems the response to a disturbance is proportional to that disturbance.

During the past few decades, however, it has become increasingly apparent that many large complicated systems do not yield to traditional analysis. Consequently, theorists have proposed a "theory of self-organized criticality": many large interactive systems evolve naturally to a critical state in which a minor event starts a chain reaction that can affect any number of elements in the system. Although such systems produce more minor events than catastrophes, the mechanism that leads to minor events is the same one that leads to major events.

A deceptively simple system serves as a paradigm for self-organized criticality: a pile of sand. As sand is poured one grain at a time onto a flat disk, the grains at first stay close to the position where they land. Soon they rest on top of one another, creating a pile that has a gentle slope. Now and then, when the slope becomes too steep, the grains slide down, causing a small avalanche. The system reaches its critical state when the amount of sand added is balanced, on average, by the amount falling off the edge of the disk.

Now when a grain of sand is added, it can start an avalanche of any size, including a "catastrophic" event. Most of the time the grain will fall so that no avalanche occurs. By studying a specific area of the pile, one can even predict whether avalanches will occur there in the near future. To such a local observer, however, large avalanches would remain unpredictable because they are a consequence of the total history of the entire pile. No matter what the local dynamics are, catastrophic avalanches would persist at a relative frequency that cannot be altered. Criticality is a global property of the sand-pile.

Practice Test 16, Passage 3

16. The passage provides support for all of the following generalizations about large interactive systems EXCEPT:

(A) They can evolve to a critical state.
(B) They do not always yield to traditional analysis.
(C) They make it impossible for observers to make any predictions about them.
(D) They are subject to the effects of chain reactions.
(E) They are subject to more minor events than major events.

20. Which one of the following is most analogous to the method of analysis employed by the investigators mentioned in the second paragraph?

(A) A pollster gathers a sample of voter preferences and on the basis of this information makes a prediction about the outcome of an election.
(B) A historian examines the surviving documents detailing the history of a movement and from these documents reconstructs a chronology of the events that initiated the movement.
(C) A meteorologist measures the rainfall over a certain period of the year and from this data calculates the total annual rainfall for the region.
(D) A biologist observes the behavior of one species of insect and from these observations generalizes about the behavior of insects as a class.
(E) An engineer analyzes the stability of each structural element of a bridge and from these analyses draws a conclusion about the structural soundness of the bridge.

Passage Two Solutions

SUMMARY

P1 - two slightly contrasting main points are presented, and it's made clear that the latter of the two is the author's view and focus. The two points are: **analysts typically blame some combination of powerful mechanisms when catastrophe strikes, and a minor event can start a chain reaction that leads to catastrophe.**

P2 - as background, discusses old (traditional) methods of analyzing large systems.

P3 - contrasts second paragraph (as expected) to say traditional methods not particularly effective for large systems—leads to a "theory of self-organized criticality" which matches up with the author's original point made in the first paragraph. Expands on the idea.

P4 - a sand pile is used as an analogy for how a small event—a dropping of a bit of sand, which typically leads to no outcome, can sometimes lead to a small avalanche.

P5 - continues on with idea but adds to it some complexity—once in a while, a piece of sand added can start a large avalanche. Author continues on to say that by studying one area, one can predict when avalanches will occur, but not how large the avalanche will be. This is because the size of the avalanche is based on the pile as a whole.

COMMENTARY

This is a fairly straightforward passage to understand until the final paragraph, at which point the difficulty level of the content, as well as the vagueness and challenge of the language, gets ratcheted up.

The first paragraph presents two ways to think about big events (catastrophes); the second paragraph the "traditional" (when you see that word, chances are 9 out of 10 that a "new" method will also be introduced) way to investigate; the third a new way to investigate (relating to main point that minor events can start catastrophes); and the fourth paragraph a simple analogy to help us think about this concept.

The final paragraph takes us on a bit of a side journey—thinking about big events from the small-triggers-perspective, the author gives us a bit of an interesting juxtaposition—you have to be close to the avalanches to be able to predict when they will happen, but you need to be far away in order to be able to see how large the avalanches will be. The author gives us this information in just about as confusing a way as possible. If need be, you can certainly feel free to read the paragraph a few times in order to understand it correctly (I know I did). If you read it two or three times and you still can't get your head around it, move on to the questions. The last paragraph doesn't hinder you from understanding the main point of the passage, and the questions themselves may help you learn more about what the author actually means.

THE QUESTIONS

16. (C) is correct.

We are looking for the one answer that is not connected to what was discussed in the passage. In evaluating the answers, we want to go back into the text to verify any for which we are not sure, but before we get to the ones that we have to carefully evaluate, we want to see if there are any obvious right or wrong choices.

(A) and (B) are both central to the main themes of the passage, and so we can easily eliminate them both. (C) is clearly not justifiable based on the text—we know that we can make some predictions, and the "impossible" is a tip-off that (C) is too extreme and seems to be the correct answer—let's keep reading. (D) is mentioned prominently in the passage and we can eliminate it without checking back. (E) perhaps needs some verification—if need be, the proof can be found in the last sentence of the third paragraph.

We can eliminate (A), (B), (D), and (E) because they all match the text. That leaves us with (C), the correct answer.

20. (E) is correct.

Before evaluating the answers, we want to go back to the second paragraph and remind ourselves of what those investigators were like. In that paragraph, we're given two main characteristics—they think about the whole in terms of individual components, and they think that the size of the disturbance = the size of the response. The meaning of that last characteristic is perhaps a bit unclear, but let's go ahead and see if we can use what we know to differentiate between answers.

(A) is about predicting for a whole based on a small sample—this is very different from what these investigators in the passage are doing (breaking a whole into parts in order to think about it) and (A) can be eliminated quickly. (B) is about piecing together a timeline of events based on documents—again, very different from what we have in our text. (C) and (D) are, like (A), examples in which samples are used to understand larger issues, and that is not what we have in our text.

That leaves us with only (E), and (E) is exactly what we are looking for. In (E), the engineer thinks about the soundness of the structure of the whole by thinking about individual components. He does not take the components to be a sample—it's simply the way he breaks down the whole. This is very similar to how the investigators mentioned in the second paragraph think about large systems, and therefore (E) is correct.

Comparative Passages

In June of 2007 the LSAT test writers instituted a change in the Reading Comprehension section: they replaced one of the four standard passages with a pair of related shorter passages (think of switching out a one-piece for a bikini). One of the four passages that you see on your exam won't be a passage at all, but rather, a pair of passages that have some sort of relationship to one another. Fortunately, these passage pairs share a lot in common with the passages that we have already gotten used to, and test many of the same exact issues, so hopefully the work you've put in thus far will allow you to transition your skills to comparative passages smoothly.

In many of the characteristics of LSAT Reading Comprehension, you can see a strong link to the type of reading that you will be doing as a lawyer, and this is especially true for comparative sets.

Let's think for a minute about the type of reading that you will be doing as a lawyer. Typically, the underlying context includes two parties who disagree, or disagree in part, about some central issue. Those people will likely be experts in that situation and in their own field, but you will not be, and your task will be to see the underlying reasoning behind the conflict. You will read notes and letters that are meant to directly support one side or the other. You will also read information that wasn't written just for the case but nevertheless proves to be valuable as support for one side or the other, or simply as background that gives you better context to understand the situation that you are dealing with.

Comparative passage sets, in many ways, mimic the types of material that you will have to read as a lawyer. The pair of passages will be related in some way to some central argument or issue. The passages may discuss that issue directly, or they may mention the issue in an indirect way. The passages can provide support for one side or the other, or simply provide background.

Please note that because comparative passages are a relatively recent addition to the LSAT, the ones that we will be using, unlike the practice questions we use when studying other topics in this book, will be from very recent exams. For a full list of which comparative exams we will be practicing with, please see the appendix. If the comparative passages in this book overlap with those you planned on using for some other part of your preparation, such as practice exams, please adjust accordingly (all LSAT Trainer schedules have already been designed to accommodate the use of certain passages for practice in this book).

You have three things you need to accomplish before you go into the questions, and typically, especially for a more challenging comparative set, you will probably have to go deep into the read before you can get these three things done. In order to have success on the questions, you want to go into them with a clear sense of the central issue to which the two passages relate; you want to have a clear understanding of the exact relationship that these passages have toward that central issue; and finally, you want to have a sense of how the two passages relate to one another. The first of those tasks is the big one—normally, by the time you've developed a clear sense of the issue, it's become clear how the passages relate to that issue, and this is the key information that helps us see how the passages relate to one another.

General questions about the passage pair will touch on the three tasks discussed above. Specific questions will typically ask about commonalities and differences between the passages—they will ask about something that is mentioned in both passages, or mentioned in one but not the other, or they will ask about what the authors are likely to agree on or disagree about. As always, a general understanding of the passages is of great help even on specific questions, for it will help you notice the attractive answers and help make the incorrect choices far more obviously so.

COMPARATIVE PASSAGES: THE POSSIBILITIES

The two passages in a comparative set will be related to some central issue, but the way in which they are related can be unpredictable. Figuring out what that central issue is and getting a clear sense of how the passages relate to it will put you in great position to answer questions. Here are some possible ways that the two passages could relate to the popcorn issue discussed earlier.

issue: is popcorn healthy?

PASSAGE A	PASSAGE B
Popcorn is healthy.	Popcorn is unhealthy.
Popcorn is healthy because of X.	Popcorn is healthy because of Y.
Many snack foods (one of which is popcorn) thought to be healthy are not.	Tests of whether snack foods are healthy or not are unreliable.
Story of how popcorn is made.	Popcorn is healthy.

YOUR PRIORITIES FOR COMPARATIVE PASSAGES

1. What Is the Central Issue?

The central issue at hand is the thing that relates the passages to one another and gives both passages their purpose—but keep in mind that you don't need to rush in trying to figure out what the central issue is. Be patient. Even figuring it out *after* reading both passages is fine. Still, you do want to consistently be thinking about what the central issue could be; the act of thinking about it will help you correctly organize the passages as you read.

2. How Are These Passages Related to It?

The second issue to consider is how the passages are related to this central issue. A passage may present us with reasons to support one opinion on an issue, or it may provide us with background. It may touch on the debatable issue directly or indirectly—perhaps in just one paragraph of a passage that is meant to be about something else, and so on. As we read and as we think about what the central issue is we naturally want to think about how the individual passages relate to that central issue...

3. How Do They Relate to One Another?

...and in conjunction with that, we also want to think about how the two passages relate to one another. In the simplest case, the two passages could represent opposing sides of a debate. More likely, however, the relationship will be slightly more complicated. Perhaps the two passages will both support one side but in different ways, or perhaps one passage gives us the general understanding of an industry that is necessary to understand the opinion in the second passage.

Drill: Comparative Passage Set One

Directions: Here are two comparative passage sets for you to practice with. Try to read and solve both questions for each set in five minutes or less, but take more time if you need to.

Passage A

Evolutionary psychology has taught us to examine human behavior from the standpoint of the theory of evolution—to explain a given type of human behavior by examining how it contributes to the reproductive success of individuals exhibiting the behavior, and thereby to the proliferation of the genetic material responsible for causing that behavior. From an evolutionary standpoint, the problem of altruism is a thorny one: what accounts for the evolution of behavior in which an individual expends energy or other valuable resources promoting the welfare of another individual?

The answer probably lies in the psychological experiences of identification and empathy. Such experiences could have initially arisen in response to cues (like physical resemblance) that indicated the presence of shared genetic material in human ancestors. The psychological states provoked by these cues could have increased the chances of related individuals' receiving assistance, thereby enhancing the survival and replication of genes influencing the capacity for identification and empathy. This would account, for example, for a mother's rushing to help her injured child; genes promoting their own self-propagation may thus operate through instinctive actions that appear unselfish.

Since human ancestors lived in small, kin-based groups, the application of altruistic mechanisms to the entire group would have promoted the propagation of the genes responsible for those mechanisms. Later, these mechanisms may have come to apply to humans who are not kin when communities grew larger. In this way, apparently altruistic mechanisms may have arisen within a genetically "selfish" system.

Passage B

Evolutionary psychology is a kind of conspiracy theory; that is, it explains behavior by imputing an interest (the proliferation of genes) that the agent of the behavior does not openly acknowledge, or indeed, is not even aware of. Thus, what seemed to be your unsurprising interest in your child's well-being turns out to be your genes' conspiracy to propagate themselves.

Such arguments can appear persuasive on the face of it. According to some evolutionary psychologists, an interest in the proliferation of genes explains monogamous families in animals whose offspring mature slowly. Human offspring mature slowly; and, at least in numerical terms, our species favors monogamous families. Evolutionary psychologists take this as evidence that humans form monogamous families because of our interest in propagating our genes. Are they right?

Maybe yes, maybe no; this kind of inference needs to be handled with great care. There are, most often, all sorts of interests that would explain any given behavior. What is needed to make it decisive that a particular interest explains a particular behavior is that the behavior would be reasonable only if one had that interest. But such cases are vanishingly rare: an interest in Y might explain doing X, but so too would an interest in doing X. A concern to propagate one's genes would explain promoting the welfare of one's children; but so too would an interest in the welfare of one's children. Not all of one's motives can be instrumental, after all; there must be some things that one cares for just for their own sakes.

Practice Test 64, Passage 3

15. According to passage B, which one of the following is an example of a human characteristic for which evolutionary psychologists propose a questionable explanation?

(A) the early human tendency to live in small communities
(B) the slow maturation of human offspring
(C) forming monogamous families
(D) misinterpreting the interests that motivate human actions
(E) caring for some things for their own sakes

17. How does the purpose of passage B relate to the content of passage A?

(A) The author of passage B seeks to support the main claims made in passage A by presenting additional arguments in support of those claims.
(B) The author of passage B criticizes the type of argument made in passage A by attempting to create an analogous argument with a conclusion that is clearly false.
(C) The author of passage B argues that the type of evidence used in passage A is often derived from inaccurate observation.
(D) The author of passage B maintains that the claims made in passage A are vacuous because no possible evidence could confirm or disconfirm them.
(E) The author of passage B seeks to undermine the type of argument made in passage A by suggesting that it relies on questionable reasoning.

Comparative Passage Set One Solutions

SUMMARY

Passage A

P1 - background—presents a way to think about behavior—from the standpoint of evolution; and presents a dilemma—difficulty of justifying altruism from evolutionary standpoint.

P2 - gives an explanation for this dilemma—**identification and empathy—we are empathetic to those most like us (family) to increase family survival.** The way it is presented (in the third person without reference to another individual) it is clear this is the author's opinion.

P3 - continues on with the train of thought to connections beyond family—we learned to practice altruism in order to promote survival of groups—communities—that would, in turn, promote the survival of our own genes.

Passage B

P1 - starts by giving a strong opinion about something the author takes for granted—the legitimacy of evolutionary psychology. It's clear this author doesn't buy it.

P2 - gives an example of a situation the author feels shows a problem with evolutionary psychology—a correlation between monogamous families and slow maturing offspring is used by these psychologists to justify a causal claim.

P3 - concludes the author's thoughts and gives us his main point **—the correlation *could* show causation, but it doesn't have to, and truly proving such claims takes great care.**

COMMENTARY

The two passages are, in and of themselves, simple enough to understand; what is unusual here is the juxtaposition of them—it's a bit of a challenge to understand correctly exactly how they are related.

After finishing both passages and getting a bit of perspective, the relationship becomes clearer—the first passage uses evolutionary psychology to explain the process of empathy, and the second passage questions the authority of evolutionary psychology.

THE QUESTIONS

15. (C) is correct.

We know we are looking for an answer that is specifically mentioned in the second passage ("according to passage B"). Before going into the text, let's see if we can knock off a few wrong answers and find an attractive one or two. The small communities mentioned in (A) were in the first passage, but not the second, and we can eliminate (A). (B) is tempting—it is discussed in the second passage—let's leave it. (C) is also mentioned, and (C) is in fact what the psychologists give an explanation for. (C) is likely correct, but let's keep going. (D) describes a characteristic of these psychologists, but not something for which the psychologists give an explanation, and we can eliminate (D). (E) is a topic of the first passage and not the second.

Let's look once again at (B)—slow maturation is mentioned, but that is not what the psychologists are trying to explain—rather, it's the *reason* they give for trying to explain monogamous families. (C) is the correct answer.

17. (E) is correct.

We discussed in the commentary that we should always be considering the relationship between the two passages as we read, so we should always be ready to answer a question like this one. We know that the first passage uses evolutionary psychology to explain the process of empathy, and the second passage questions the authority of evolutionary psychology.

Based on that understanding, (A), (B), and (D) are all answers that are clearly false and can be quickly eliminated. Both (C) and (E) are attractive answers and need to be evaluated carefully. (C) states that the second passage argues against the "type of evidence" based on "inaccurate observation." This is not really reflective of the second passage, which doesn't argue against the way the evidence was observed, but rather the causal conclusion reached when it's brought together. (E) better reflects the relationship the second passage has to the first, and is therefore correct. The author of the first passage is using evolutionary necessity to spur his reasoning, and the author of the second passage questions that sort of reasoning.

Drill: Comparative Passage Set Two

Passage A

In Canadian and United States common law, blackmail is unique among major crimes: no one has yet adequately explained why it ought to be illegal. The heart of the problem—known as the blackmail paradox—is that two acts, each of which is legally permissible separately, become illegal when combined. If I threaten to expose a criminal act or embarrassing private information unless I am paid money, I have committed blackmail. But the right to free speech protects my right to make such a disclosure, and, in many circumstances, I have a legal right to seek money. So why is it illegal to combine them?

The lack of a successful theory of blackmail has damaging consequences: drawing a clear line between legal and illegal acts has proved impossible without one. Consequently, most blackmail statutes broadly prohibit behavior that no one really believes is criminal and rely on the good judgement of prosecutors not to enforce relevant statutes precisely as written.

It is possible, however, to articulate a coherent theory of blackmail. The key to the wrongness of the blackmail transaction is its triangular structure. The blackmailer obtains what he wants by using a supplementary leverage, leverage that depends upon a third party. The blackmail victim pays to avoid being harmed by persons other than the blackmailer. For example, when a blackmailer threatens to turn in a criminal unless paid money, the blackmailer is bargaining with the state's chip. Thus, blackmail is criminal because it involves the misuse of a third party for the blackmailer's own benefit.

Passage B

Classic Roman law had no special category for blackmail; it was not necessary. Roman jurists began their evaluation of specific categories of actions by considering whether the action caused harm, not by considering the legality or illegality of the action itself.

Their assumption—true enough, it seems—was that a victim of blackmail would be harmed if shameful but private information was revealed to the world. And if the shame would cause harm to the person's status or reputation, then prima facie the threatened act of revelation was unlawful. The burden of proof shifted to the possessor of the information: the party who had or threatened to reveal shameful facts had to show positive cause for the privilege of revealing the information.

In short, assertion of the truth of the shameful fact being revealed was not, in itself, sufficient to constitute a legal privilege. Granted, truth was not wholly irrelevant; false disclosures were granted even less protection than true ones. But even if it were true, the revelation of shameful information was protected only if the revelation had been made for a legitimate purpose and dealt with a matter that the public authorities had an interest in having revealed. Just because something shameful happened to be true did not mean it was lawful to reveal it.

Practice Test 65, Passage 3

14. Which one of the following is the central topic of each passage?

(A) why triangular transactions are illegal
(B) the role of the right to free speech in a given legal system
(C) how blackmail has been handled in a given legal system
(D) the history of blackmail as a legal concept
(E) why no good explanation of the illegality of blackmail exists.

17. Which one of the following is a statement that is true of blackmail under Canadian and U.S. common law, according to passage A, but that would not have been true of blackmail in the Roman legal context, according to passage B?

(A) It combines two acts that are each legal separately.
(B) It is a transaction with a triangular structure.
(C) The laws pertaining to it are meant to be enforced precisely as written.
(D) The blackmail victim pays to avoid being harmed by persons other than the blackmailer.
(E) Canadian and U.S. common law have no special category pertaining to blackmail.

Comparative Passage Set Two Solutions

SUMMARY

Passage A

P1 - presents the primary issue at hand—**blackmail is a difficult crime to define because it is the bringing together of two legal acts.**

P2 - discusses the consequences of not having a clear definition—the author finds the consequences damaging.

P3 - presents the author's main point about the issue—**there is, indeed, a clear way to define blackmail as a crime—blackmail is a crime because it misuses a third party for the blackmailer's benefit.**

Passage B

P1 - gives background on Roman law as it relates to blackmail—**Romans had no special law for blackmail because their concept of legality was based on the consequences of that action.** This turns out the be the central theme of the passage as a whole.

P2 - explains blackmail on these terms—blackmailer got in trouble if blackmail caused harm, and he would need to show just cause.

P3 - concludes the discussion of Roman law—truth was relevant to discussion of blackmail as a crime, but repeats that truth was not the determinant of legality (consequences and harm were).

COMMENTARY

The passages could both be part of a general study on blackmail laws. The first passage presents one way of defining blackmail law per the confines and conventions of current Canadian and United States law. The second passage presents another way of defining blackmail as a crime—one based on consequences for the person being blackmailed.

THE QUESTIONS

14. (C) is correct.

Most questions that accompany comparative passages will require us to compare or contrast the two passages. In this case, we need to look for a central topic for both—that is, we need to look for something they have in common.

Most commonly, wrong answers give us something mentioned in one passage but not the other. Knowing that, let's go in.

(A) is a topic of the first passage, but not the second. (B) is mentioned a bit in the first passage, but is a central topic of neither passage. (C) accurately describes the main topic of each passage—let's leave it for now. (D) is tempting—taken together, the two passages give us parts of the history; however, the question is asking us what each passage is doing by itself, and neither passage gives us a history (as in descriptions at various points in time) of blackmail. (E) is a topic for the first passage but not the second.

That leaves us with only (C)—let's confirm it by checking it against the text. The first passage discusses (primarily in the second paragraph) how blackmail has been handled in the United States and Canada. The second passage discusses how it was handled in Roman law. (C) is correct.

17. (A) is correct.

This question is asking us for something different about the two passages—in particular, for something that is true about Canadian and U.S. common law that isn't true under Roman law.

We know (A) is true for the first passage, but it's not as clear if we can get a clear sense of how these laws related to Roman law from the second passage. Still, it's a pretty good choice—let's leave it for now.

(B) is a general theory about what blackmail is, not what the laws are, and can be quickly eliminated. (C) is not true of the rules for either time, (D) would be true of blackmail throughout history and has nothing to do with specific laws, and we know that the Romans had no special category for blackmail law, so we can eliminate (E).

(B) through (E) are all clear eliminations, and that leaves us with only (A). Is it correct? Let's try to verify. We know for sure that under Canadian and United States law, (A) is true. Can we say that these two acts are not "legal" per Roman law?

Yes we can. We are told at the end of the first paragraph that the Romans did not consider issues in terms of the legality or the illegality of the act itself. That means that the Romans did not think of the two acts as "legal" (or illegal).

How Did You Do?

It is not expected, at this point, for you to feel completely confident in your ability to get every question correct in the amount of time that you are allotted (though if you do, great). What is expected is that, hopefully, you feel that you now have a much clearer understanding of the design of LSAT passages, and that you have a good sense of what types of reading strategies align well with that design. With a clear sense of things, and an effective plan for improvement, you can and should expect your accuracy and confidence to increase as you gain more experience handling LSAT Reading Comprehension passages.

The Road Ahead

Assuming that you are following one of the study schedules, and assuming that you are working through this book in conjunction with the 10 Actuals book, the next part of your process will be to get some experience, on your own, with some full LSAT passages and questions.

In the last few lessons, we have thoroughly discussed the design of LSAT Reading Comprehension passages, and the intentions of the test writers. We have also had a good deal of experience practicing effective reading strategies that align with the nature of the exam. Hopefully, the work that you do on your own reinforces your understanding and helps you along in the process of habitualizing effective reading practices.

On the other hand, other than in the context of discussing specific passages, we have yet to take an in-depth look at the various types of challenges that different types of questions can present. We will do so in the next swatch of Reading Comprehension lessons. Just as we have for Logical Reasoning and will for Logic Games, we will break down the specific tasks that particular questions present, and we will discuss strategies that are effective for handling the challenges. However, I expect (and I'm sure you expect) that you will be fine practicing questions before we discuss them, for Reading Comprehension questions tend to be written in a fairly obvious and clear-cut way.

I do want to encourage two habits, habits we will expand upon in later Reading Comprehension lessons.

For one, get in the habit of paying extra careful attention to the question stem, and do your best to read it as literally as you possibly can. Keep in mind that the test writers do not use wording casually in the question stem—questions are worded in very specific ways for very specific reasons. Therefore, if a question begins, "According to the passage..." you know that the answer must be something that is true according to the passage—that is, the right answer needs to be something *specifically mentioned* in the passage. If a question begins, "According to line X, it can be inferred that..." we know two things—the right answer must be connected to those particular lines (tempting wrong answers might be connected to other nearby lines of text) and we know that the right answer is something to be inferred—that is, the right answer will *not* be specifically mentioned.

Additionally, just as in Logical Reasoning, get in the habit of arriving at the right answer by eliminating incorrect choices. By finding reasons why answers are wrong, and reasons why an answer is right, you can be far more consistent than someone else who simply seeks a right answer—the tempting wrong answer will have an extra hoop to jump through in order to fool you. Furthermore, though it may seem counter-intuitive, habitually taking the time to eliminate wrong choices, while seemingly adding an extra step, makes you a faster overall test taker. No matter what, you have to look at every answer choice if you want to achieve a high level of accuracy, and it turns out that it's far easier, faster, and more accurate, in general, to think about why these answers are wrong, rather than why they are right. By first focusing on eliminating wrong choices, you will spend less time debating between two or three answers that sound attractive.

Basic Timing Strategies

After this lesson, most of you are going to be spending some time working on a couple of full Reading Comprehension sections. So, this is a good time to pause for a minute to discuss general Reading Comprehension timing strategies. We can think about timing from a variety of perspectives. In this lesson, we'll discuss the pace necessary to complete all questions in the allotted time, the primary factors that influence our timing, and also the strategies we can employ if we run short on time and need to make timing decisions. We'll add on to our discussion of timing in the final lessons.

Twenty-Seven Questions in Thirty-Five Minutes

Top scorers in the Reading Comprehension section are consistently able to finish all questions—it's hard enough to get a perfect or near perfect score without leaving possible points on the table. Let's talk about the specific characteristics that are common to these effective and time-efficient test takers.

In general, top scorers typically read passages in about two to three minutes, depending on the length and difficulty of the passage. In order to finish a typical passage in this time, most people need to read at a pace that would allow them to get through a passage—if they read it straight through without pausing—in about 1:30 or 2 minutes. You can try the exercise now to see what your natural non-pause pace is. Reading at that pace allows for up to a minute or so to pause at various points and reread when necessary, and to reflect on reasoning structure. Keep in mind that this is an extremely broad guideline, and when it comes to reading pace, there is great variation even among high scorers. I've seen some high scorers take up to 4 or even 4:30 per passage and still have no trouble with time (these folks are able to go through questions very quickly, and seem to have short-term memories that are far more capable than my own). I've also witnessed some exceptional students who are able to finish passages in less than two minutes without sacrificing any retention. Bring together our guidelines, your own reading style, and your experience with actual LSAT passages and work toward developing an ideal that works best for you.

Reading at this pace leaves you with a little bit less than one minute per question, and that's more than enough, in large part because if you read well, there should be a significant number of questions that take very little time. Questions that ask about the passage as a whole, as well as questions that ask about an easily identifiable and understandable detail, are often questions that can go very quickly. Other questions, by their design, are meant to take longer, and you shouldn't hold yourself to a universal timing standard for every question. However, you should develop and habitualize a timing limit—the most time you will spend on any one question. Try setting that limit at 2:00 for now, and try moving it up or down depending on how many questions push you to that limit, and how that impacts your overall timing.

How Timing Improves

Generally speaking, by far the most important and significant way to improve your Reading Comprehension timing is to become more effective and more accurate with each of the skills that Reading Comprehension questions require of us. In order to answer a typical question correctly, we need to have correctly understood the main points and the reasoning structure of the passage, we need to have understood the question stem and used it properly to guide our process, we need to be able to anticipate characteristics of the right answer, we need to be able to confidently and accurately eliminate wrong answers, and we need to be able to confirm the right choice. The way this test is designed, the better you get at each of those steps, the faster you will get as well. You want your improving skill-set to be the driving force behind your timing improvement, and if you are having significant struggles with your timing, it can be helpful to think about the steps in your process that are holding you back.

In addition to getting faster at the steps necessary to arrive at a right answer, we can also improve our timing by cutting out steps that are unnecessary for arriving at right answers. Typically, the biggest waste of time during the reading of a passage occurs when we get stuck on a part we cannot understand—often one involving a lot of technical details—and even though we understand the role the part plays, we end up reading the section again and again because we *want* to understand. This is commonly time wasted. During the questions, the most wasteful time is that spent on *missed* questions (because that time doesn't result in points). Unless you have time to spare, no question is worth three minutes of your time, and if you are not careful, it's very easy to over-invest in one question. Work on improving your timing by not getting snagged in the passage, and by learning to let go of tough questions after a certain cutoff.[1]

1. We'll discuss this in greater detail later but, for now, one bit of advice is to think about cutoffs in terms of processes, rather than actual time. During the pressure of the actual exam, it's very difficult to keep accurate track of time—it's very difficult to be sure if a minute and a half or two minutes has passed. It's also a waste of energy and a distraction to keep checking your watch during a question. A better way to set a cutoff is to think of it in terms of your problem-solving steps. One way to set a cut-off, perhaps, is—"okay, if I get stuck on a question, I'll give myself one more re-read of the stem, and one more run through the answers. After that, if I don't have a clear choice, I'll pick the best available and move on." Make sure to use your practice time to habitualize such strategies so that by test day you can react to challenges correctly without having to consciously think about which strategies you should employ.

Making Tough Timing Decisions

Even if we learn everything there is to learn about LSAT Reading Comprehension, and even if we do everything we can to habitualize effective problem-solving processes, we may still find ourselves not being able to finish all the questions in the allotted time. In fact, this is true for a majority of test takers. With that in mind, let's talk a bit about how to make tough timing decisions.

If you are okay with missing six or seven questions on the Reading Comprehension section, and find that finishing all four passages in thirty-five minutes is next to impossible, you might be tempted to put all of your energy into just three of the passages, and to skip one passage.[2] I strongly recommend against using such strategies. If you are strong enough to go near-perfect on three passages, you should be strong enough to get to four passages. If you are not strong enough to get to four passages, you won't be strong enough to go nearly perfect on the three you do attempt. The best you can hope for with such a strategy is a -9 or -10, and it's very difficult to get a top score with that many misses in any one section.

2. Some preparation systems even endorse such strategies.

One reason the above is such a bad strategy is that questions, rather than passages, most directly determine difficulty. Easier passages commonly have one or two tough questions, and even the toughest passage will have a few questions that can be answered easily. Thus, you don't want to avoid entire passages—instead, if you need to cut time, you want to avoid spending time on the toughest questions. If you find yourself not being able to finish the section in 35 minutes, give yourself a certain number of questions—say four per the section—which you will read, tell yourself "okay, this one is too tough," then spend about 15 more seconds taking an educated guess. These four questions are, otherwise, likely ones that you would have spent a significant amount of time on, up to 8 of your 35 minutes perhaps, with the likelihood of very little return for that time invested. Cutting time on these questions is probably the wisest cut you can make, if cuts are necessary.

If you are currently still at the beginning of your Reading Comprehension studying, I strongly encourage you to hold off, for now, on adopting the time-cutting strategy mentioned above. Trust in the fact that improved understanding and skill will naturally result in faster times. If you do end up needing to cut time on some questions, you can work on such strategies later on in your study process.

Where's "the official LSAT Trainer RC Notation System?"

There isn't one! Here are the three main reasons why:

1. LSAT Reading Comprehension is not "solved" through notation—unlike with Logic Games, no amount of notation will necessarily make it markedly easier for you to anticipate or answer Reading Comprehension questions.

2. I personally notate very little. I may put a little line next to the main points for a passage, but typically I won't notate anything at all. I would feel disingenuous recommending something I don't do myself.

3. What's most important is not how you notate, but what you notate. All of us have certain notational systems that we have developed and are most comfortable utilizing. Your notations will be most effective if you use what you are used to.

Underlining, marking, or taking small notes on the side as we read can all be very effective ways to enhance our reading experience and our understanding—the act of holding a pencil in our hands and doing something active while reading tends to make almost all of us better readers. So, by all means, please do notate, and don't take this as a vote against notation. But do make sure that you have a correct sense of what it is that you are meant to get out of your notation. You want to use your marks to emphasize the main points, and the organization of the passage relative to those main points. You can use any notational system that you feel comfortable with to get this done.

I encourage you to try out a few different methods of notation, but make sure that you don't let the focus on notation take away from the focus on the passage itself. More specifically, I want to strongly urge you not to try to memorize a very specific and nuanced notational system—for example, one in which you use different types of symbols for main point, opinion, supporting detail, definition, and so on. Any such system will naturally encourage you to focus on the trees, rather than the forest—since our job during the initial read is to see the big picture, these types of systems can be detrimental. As long as you have a strong mental sense of what the main points are and where they are, it's fairly simple to track the organization of any LSAT passage mentally, or by using very simple notations.

26 LOGIC GAMES answering questions

In our first swatch of Logic Games lessons, we focused on understanding game scenarios and developing diagramming skills. The first two to three minutes of a game—the time you spend visualizing a situation and representing it—are crucial for your eventual success with a game, and your ability to diagram is ultimately what will determine, for most of you, whether or not you feel control over games.

Still, the majority of the time that you spend during a games section will be spent on the process of answering specific questions. And of course, whether you are able to answer questions correctly or not will be, practically speaking, what actually determines your score. In this swatch of lessons, we'll focus on integrating your diagram and your diagramming skills into the problem-solving process.

There are three things we need to do to consistently get Logic Games questions right. First, we need to set up a clear, correct, and usable understanding of the situation the game presents. Next, we need to read question stems correctly—that is, we need to be able to figure out from them exactly what our job is. Finally, we need to apply effective strategies in order to perform that job in an efficient manner. We've talked about that first key quite a bit—now we'll focus on the remaining two steps.

For most question stems, there are two main issues to consider: "is there new information to incorporate?" and "what will the split be between right and wrong answers?"

Reading the Question Stem

Do not dismiss the importance of the question stem. You only have about a minute to answer each question, and that minute goes by very fast when you are under pressure. The question stem presents the instructions for exactly what you should be thinking about during that time. So, treat that question stem with utmost care.

For most Logic Games question stems, there are two main issues to consider: "Is there new information to incorporate?" and "What will the split be between right and wrong answers?" For just a few questions per games section—perhaps two or three total—there is a third consideration: "What are the various possibilities for this part of the game being discussed?" We'll focus on the two main issues in this lesson, and cover the third, less common, issue in the next lesson.

New Information

Many questions begin by giving you additional information about a game, and almost all such questions begin, "If..." The common terminology is that these are *conditional* questions, for they give us a new *condition* to deal with. *(continued on page 372)*

THE TABLE OF

common notations

F is assigned to X F — X	X will be occupied ○ — X	X will not be occupied / — X	F or G is assigned to X F/G — X	F is assigned to X or Y F/ /F — — X Y	A boy is assigned to X _b X
F is before G F — G G is after F	F is immediately before G FG G is immediately after F	F is at least two spots ahead of G F__ __...G G is at least two spots after F	F is after G but before H G — F — H	F is exactly two spots ahead of G F __ G G is exactly two spots after F	F is immediately before a boy F _b
There is at least one spot between F and G F__...G	F if right before or right after G F G	F is before both G and H F / G F \ H	F is after both G and H G \ F H / F	There is exactly one spot between F and G F __ G	F is exactly two spots ahead of a boy F__ _b
The same element is assigned to X and Y □ □ X Y	Different elements are assigned to X and Y □ △ X Y	F, G, and H occupy X, Y, and Z (F, G, H) — — — X Y Z	F and G are grouped together $\boxed{F \; G}$	F is grouped with a boy F _b	F is a boy Fb

(+)

not	**If...,then...**	**or**	**and**	**free agents**	**multiple diagrams**
/	→	or	+	F G H K L	— — — — — — — — — — — —

Most of the rules above can be converted into "not" rules by adding a cross-out.

Most of the rules above can be combined into conditional rules.

Most of the rules above can be combined into compound rules through the use of "or" or "and."

If all but one or two of your elements are mentioned in the rules, it can be helpful to track the unrestricted elements.

Once in a while—most commonly in a game defined by a complex or rule—it will be helpful to work off of more than one diagram.

HERE'S a reprint of the table of common notations originally presented in Lesson 15. Let's do a quick review of the key characteristics that define these rules:

The most basic rules—rules of **assignment**—have to do with how particular positions will be filled. We can be told that a specific element will fill a specific position, that a particular position will not be filled, and so on.

The most common and varied rules, the rules of **order**, relate elements to one another in the context of an ordering game. These rules can be specific, or they can be general. Either two or three of the games you see on your exam will be ordering games, and understanding and utilizing ordering rules well will be the key to your success on those games.

Grouping is a very common game characteristic—appearing in just a little less than half of all games—and though the inferences related to grouping can be just as complicated as those relating to any other issue, methods of notating grouping rules are fairly simple. Unless game scenarios specifically dictate otherwise, we want to represent all grouping issues vertically, and doing so consistently can make visualizing grouping far easier.

The test writers use **subsets** to add an additional layer of complexity to common ordering and grouping games. Subsets can apply to elements, positions, or both. By always using lowercase letters (or numbers) for subset issues, we can easily just adapt our normal notations to accommodate subset rules.

When the number of elements doesn't equal the number of positions, or when games involve subsets, we can run into **numbers issues**. For these games, we have to think about whether elements will be included or not, or whether slots will be filled or not, and simple notations can help us do that.

Finally, the rules of a game can also be defined by the form of the rule itself.

The rule can be **conditional**—that is, it can be a rule that only applies in particular situations. These conditional rules can be some of the most tempting to misunderstand or misuse—accuracy and comfort with your notation systems are essential here.

Or, the rule can give us more complex possibilities through the use of **and** and **or.** These rules can also be more challenging than normal to understand, but the benefit is often great. Because these rules commonly include more then two elements, or because these rules commonly create a clean "divide" between the various possibilities for a particular game, these rules are commonly the most important rules for the games in which they appear.

More on Conditional Rules

Nearly any pair of rules mentioned on the left can be turned into a conditional rule—that is, a rule that is triggered by something else happening. For all conditional rules, the key to success is to understand the rule correctly, and to understand ways in which it can be utilized, and (perhaps more importantly) ways in which it cannot. For every conditional rule, you must account for the contrapositive. You can choose to do so in your head or on paper, based on the game, but you should always put it down on paper if there is a chance it will be forgotten or mistaken. Again, correctly answering questions will likely require a careful understanding of any conditional rules, and many incorrect answers are built off of incorrect understandings of conditional rules.

We use a simple arrow to represent all conditional rules. Here is the basic notation along with the common wordings you will see for the rule. Below that is an example of a biconditional—a rule that is triggered in both directions.

"M → P" contrapositive: "- P → - M"

If M, then P
Any with M must have P
All with M have P
No M's are without P's
You can't have M unless you have P
M only if P

"M ↔ P" contrapositive "- P ↔ - M"

M if and only if P

More on the Meaning of Or

Rules can be brought together through the use of "and" and "or." The meaning of "and" is simple and clear, but the meaning of "or" is a bit more complex.

Keep in mind that unless there are other considerations, the word "or" does not, in and of itself, exclude the possibility of "both." Thus, if a rule states "F or G will be assigned to the management team," it is entirely possible that both F *and* G can be assigned to the management team.

Also keep in mind that in many instances there are natural restrictions that prevent "or" from including "both." If we are told each person can have one locker, then told F can have either "locker 2 or locker 3," we will know that F getting both is not a possibility.

When given new information, it's crucial that you use it as the starting point of your thought process. For all conditional questions, the information presented in the question stem will *always*[1] lead us to figure out more about a game, and—here's the important thing to know—these additional inferences will be what determine the right answer and, generally, these inferences, or rather mistaken versions of these inferences, are what determine the wrong answers.[2] Put simply, the inferences you make based on the conditional information is what will determine right and wrong.

If you have a strong understanding of a game, it should generally be somewhat routine for you to work off of conditions—they are just an additional rule to fit into your understanding of the game. Often, especially for games that give us few up-front inferences, the information in the condition works as a "trigger" that sets off a chain of consequences, and I'm sure you've experienced that in some of the questions you've already worked on. When you are not able to come up with inferences, or when it seems the information in the condition doesn't mesh correctly with your diagram, it's generally a sign that there is a problem with your initial understanding of that game.[3]

1. It doesn't have to be this way. If the test writers wanted to be cruel, they could sometimes include questions that give us new information, but don't actually require it to arrive at the right answer. They do not write questions that work this way. For all conditional questions, the right answer will be something we figure out based on the new condition.

2. Sometimes, a condition will not lead to enough inferences for the test writers to write four quality wrong choices based off of mistaking those inferences. In those cases wrong answers will be wrong based on what we already know about a game before seeing the condition.

3. You should be on the lookout for such markers of trouble—generally you'll know within two or three questions if something is wrong with your initial understanding of the game/diagram. In these cases, stop immediately and go back and check your understanding by re-reading the stimulus, then matching your notations to the written rules. We'll discuss such strategies in greater detail in later lessons.

The Split between Right and Wrong Answers

As we've discussed in previous lessons, almost all questions differentiate right answers from wrong ones in terms of that which must be certain versus that which is uncertain or unknown. Let's discuss this idea in a bit more depth.

When we first started talking about games, we talked about the fact that games are, in large part, designed to test your logical reasoning skills—specifically, your ability to see how information comes together (X is before Y and Y is before Z, therefore X is before Z) and your ability to recognize when it doesn't (X is before Z and Y is before Z tells us little about the relationship between X and Y). It makes sense, then, that answer choices would be differentiated in terms of that which is known for sure (that which must be true or must be false) versus what is left uncertain (that which could be true or false).

There are four different ways in which we will be asked to split up that which *must* be from that which doesn't, and they are presented in the table on the opposite page. Note that the chart represents general tendencies. Occasionally, there is a "must be false" wrong answer to a "must be true" question, or something else similar—this tends to happen when there is not enough uncertainly left in the game to create four viable "could be true or false" wrong answers.

In previous lessons, we've touched on the idea that for certain Logic Games questions, we want to go through the elimination process to arrive at a right answer, and for others, we want to simply search for a right answer. This is a very important strategy, and it's critical that you understand the logic behind it and the consequences of implementing it successfully.

In general, when we think about games, it's best to think about them in terms of what we know for sure—this is easier than trying to simultaneously keep in mind both what we know for sure *and* what we don't. Our diagrams are specifically designed for the purpose of emphasizing that which we know for sure—we only put down what we know for sure, and we leave off the information that we don't know about (that's why we don't put conditional rules directly into our diagram). And our diagrams are our key weapon for organizing our thoughts and attacking questions. All that is to say—we are much better equipped to think about *must be* than what *could be*, and prioritizing what *must be* is the best approach for differentiating between answer choices.

Let's imagine a question that asks us which of five answer choices "must be false." What do we know of the right answer? It *must be* false. When we check it against our diagram, it should reveal itself with certainty. What do we know of the wrong answers? They *could be* true (or false)—they will be answers about which we don't know enough to say for sure. When we check them against the diagram, they will leave things uncertain. In this case, we want to focus on identifying the one right answer that must be false, rather than going through an elimination process. Looking out for the one answer we know something about is the most direct way to solve the question.

We are much better equipped to think about what must be than what could be, and prioritizing what must be is the best approach for differentiating between answer choices

The alternative would be to arrive at the right answer by eliminating wrong ones—by confirming that four answers could be true. This would take significantly more time, and because it requires more work, opens you up to errors. If worst comes to worst (that is, you can't find the answer that must be false), you may have to resort to this, but you don't want to do this work unless you have to do.

Now let's imagine a question that asks us which of five answer choices "could be true." What do we know about the right answer? It's something that *could be* true (or false). What do we know about the wrong answers? They *must* all be false. We should be able to see so absolutely with our diagram. In this situation, it will typically be much easier to eliminate answers that must be false, and it will typically take a bit more time and work to see that an answer is correct. So, in this situation, we typically want to arrive at the correct answer by eliminating incorrect answers.

Below are the four different ways test writers can ask us to differentiate between that which must be and that which could be, along with ideal strategies for attacking such questions. Of all the habits for Logic Games, there are none that are more important than that of correctly searching for the right answer, or choosing to use an elimination process, based on the question stem. If you can develop the correct habits for attacking questions, you will be able to solve questions far more quickly and accurately.

Search for the Right Answer or Eliminate Wrong Ones?

Question Stem	Same As	Wrong Answers	Primary Strategy	Backup Strategy
...must be true?	...could be false EXCEPT:	could be true or false	Search for the right answer	See if answers could be false
...could be true?	...must be false EXCEPT:	must be false	Eliminate wrong choices	See if answer could be true
...could be false? (rare)	...must be true EXCEPT:	must be true	Eliminate wrong choices	See if answer could be false
...must be false?	...could be true EXCEPT:	could be true or false	Search for the right answer	See if answers could be true

Note that for all question stems, the primary strategy is based on what must be, and the secondary strategy is based on what could be. Also note that these are general strategies—in certain situations, it might make more sense to reverse primary and secondary strategies. The most common situation in which this will be true is games that are extremely simple, or games that allow us to "solve" a great deal before evaluating answers. We can test whether answers could be true or could be false by using hypotheticals. Hopefully you won't have to use them too often, but sometimes they are necessary and helpful.

Must be True or False Drill

Directions: On these two pages are scenarios and rules for two fairly straightforward games that appeared on past LSATs. We're going to use these two games to practice two things: working off of conditions in the question stem, and making decisions about what must be true, must be false, or could be either true or false. For each game, first draw out your diagram and check it against the solutions. It's imperative you do so, for working off of an incorrect diagram will significantly dilute the benefit of the exercise. Below the scenario and rules are a set of possibilities that you are meant to evaluate. For each one, write a **"T"** if the possibility is one that **must be true.** Write a **"F"** if it's a possibility that **must be false. If it's something that could be true or false, leave it blank.** The second and third sets begin with conditions—redraw your diagram for these sets, and make sure to check your diagram against the solutions before using your new diagram to evaluate the possibilities.

On a Tuesday, an accountant has exactly seven bills—numbered 1 through 7—to pay by Thursday of the same week. The accountant will pay each bill only once according to the following rules:

Either three or four of the seven bills must be paid on Wednesday, the rest on Thursday.
Bill 1 cannot be paid on the same day as bill 5.
Bill 2 must be paid on Thursday.
Bill 4 must be paid on the same day as bill 7.
If bill 6 is paid on Wednesday, bill 7 must be paid on Thursday.

SET 1

#	Possibility	t/f
1	6 is paid on Thursday	
2	3 is paid on Thursday	
3	both 6 and 7 are paid on Thursday	
4	both 3 and 4 are paid on Thursday	
5	both 4 and 5 are paid on Weds	
6	both 4 and 6 are paid on Weds	
7	either 6 or 7 is paid on Weds	
8	either 3 or 4 is paid on Thursday	
9	2 and 4 are paid on different days	
10	6 and 7 are paid on the same day	

SET 2

condition: If he pays 3 on Thursday...

#	Possibility	t/f
1	4 is paid on Wednesday	
2	5 is paid on Thursday	
3	6 is paid on Thursday	
4	Exactly three bills are paid on Weds	
5	3 and 6 are paid on the same day	
6	1 and 4 are paid on different days	
7	Exactly three bills are paid on Thurs	
8	7 is paid on Thursday	
9	3 and 5 are paid on the same day	
10	5 and 7 are paid on different days	

SET 3

condition: He pays 5 and 7 on the same day...

#	Possibility	t/f
1	3 is paid on Wednesday	
2	4 and 1 are paid on the same day	
3	5 and 2 are paid on the same day	
4	2 and 3 are paid on different days	
5	4 and 5 are paid on different days	
6	4 is paid on Wednesday	
7	Both 3 and 4 are paid on Thursday	
8	6 and 1 are paid on the same day	
9	Both 3 and 5 are paid on Weds	
10	Both 5 and 6 are paid on Weds	

Must be True or False Drill

A college dean will present seven awards for outstanding language research. The awards—one for French, one for German, one for Hebrew, one for Japanese, one for Korean, one for Latin, and one for Swahili—must be presented consecutively, one at a time, in conformity with the following constraints:

The German award is not presented first.
The Hebrew award is presented at some time before the Korean award is presented.
The Latin award is presented at some time before the Japanese award is presented.
The French award is presented either immediately before or immediately after the Hebrew award is presented.
The Korean award is presented either immediately before or immediately after the Latin award is presented.

SET 1

#	Possibility	t/f
1	G is presented before F	
2	F is presented fourth	
3	J is presented fourth	
4	Neither F nor H is presented third	
5	The latest H can go is fourth	
6	Either F or H is presented 2nd or 3rd	
7	G is presented third	
8	L is presented third	
9	G is presented after S but before K	
10	L is presented before F	

SET 2
condition: If F is presented third...

#	Possibility	t/f
1	S is presented before G	
2	L is presented before S	
3	G is presented fifth	
4	G is presented second	
5	K is presented sixth	
6	S is presented second	
7	Earliest J can be presented is 6th	
8	L is presented before G	
9	S is presented first	
10	L is presented fourth	

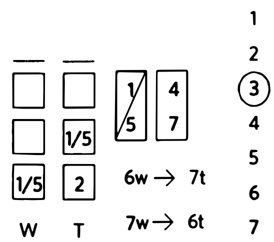
SET 3
condition: If S is presented last...

#	Possibility	t/f
1	F is presented second	
2	G is presented before J	
3	J is presented before G	
4	Either K or L is presented fourth	
5	G is presented second	
6	K is presented sixth	
7	L is presented third	
8	Either G or J is presented sixth	
9	H is presented third	
10	G is presented after K	

Must be True or False Solutions

On a Tuesday, an accountant has exactly seven bills—numbered 1 through 7—to pay by Thursday of the same week. The accountant will pay each bill only once according to the following rules:

Either three or four of the seven bills must be paid on Wednesday, the rest on Thursday.
Bill 1 cannot be paid on the same day as bill 5.
Bill 2 must be paid on Thursday.
Bill 4 must be paid on the same day as bill 7.
If bill 6 is paid on Wednesday, bill 7 must be paid on Thursday.



For a more detailed explanation, see page 381. Note that we could have splintered it into two diagrams based on where the 4 and 7 go, and that would certainly make solving the questions a bit easier. However, because the situation is fairly simple to understand, I didn't feel it necessary to do that here.

SET 1

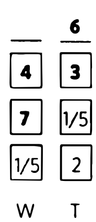
#	Possibility	t/f
1	6 is paid on Thursday	
2	3 is paid on Thursday	
3	both 6 and 7 are paid on Thursday	F
4	both 3 and 4 are paid on Thursday	F
5	both 4 and 5 are paid on Weds	
6	both 4 and 6 are paid on Weds	F
7	either 6 or 7 is paid on Weds	T
8	either 3 or 4 is paid on Thursday	
9	2 and 4 are paid on different days	
10	6 and 7 are paid on the same day	F

SET 2
condition: If he pays 3 on Thursday...

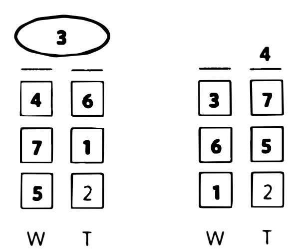
#	Possibility	t/f
1	4 is paid on Wednesday	T
2	5 is paid on Thursday	
3	6 is paid on Thursday	T
4	Exactly three bills are paid on Weds	T
5	3 and 6 are paid on the same day	T
6	1 and 4 are paid on different days	
7	Exactly three bills are paid on Thurs	F
8	7 is paid on Thursday	F
9	3 and 5 are paid on the same day	
10	5 and 7 are paid on different days	

SET 3
condition: He pays 5 and 7 on the same day...

#	Possibility	t/f
1	3 is paid on Wednesday	
2	4 and 1 are paid on the same day	F
3	5 and 2 are paid on the same day	
4	2 and 3 are paid on different days	
5	4 and 5 are paid on different days	F
6	4 is paid on Wednesday	
7	Both 3 and 4 are paid on Thursday	F
8	6 and 1 are paid on the same day	T
9	Both 3 and 5 are paid on Weds	
10	Both 5 and 6 are paid on Weds	F



If 3 is paid on Thursday, 4 and 7 must be paid on Wednesday, and that means 6 must be paid on Thursday.



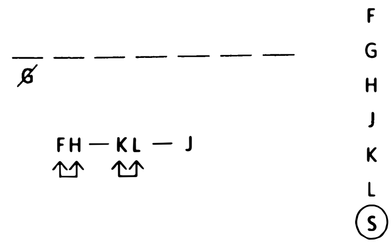
The 5 and 7 can go together either on Wednesday or Thursday, so it makes sense to draw two diagrams for the two possibilities.

If 5 and 7 go Wednesday, 4 must go Wednesday, and 1 and 6 on Thursday. If 5 and 7 go on Thursday, 4 must go Thursday, and the remaining elements Wednesday.

Must be True or False Solutions

A college dean will present seven awards for outstanding language research. The awards—one for French, one for German, one for Hebrew, one for Japanese, one for Korean, one for Latin, and one for Swahili—must be presented consecutively, one at a time, in conformity with the following constraints:

The German award is not presented first.
The Hebrew award is presented at some time before the Korean award is presented.
The Latin award is presented at some time before the Japanese award is presented.
The French award is presented either immediately before or immediately after the Hebrew award is presented.
The Korean award is presented either immediately before or immediately after the Latin award is presented.



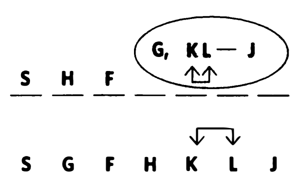
For a more detailed explanation, see page 382.

SET 1

#	Possibility	t/f
1	G is presented before F	
2	F is presented fourth	
3	J is presented fourth	F
4	Neither F nor H is presented third	
5	The latest H can go is fourth	T
6	Either F or H is presented 2nd or 3rd	T
7	G is presented third	
8	L is presented third	
9	G is presented after S but before K	
10	L is presented before F	F

SET 2
condition: If F is presented third...

#	Possibility	t/f
1	S is presented before G	T
2	L is presented before S	F
3	G is presented fifth	F
4	G is presented second	
5	K is presented sixth	
6	S is presented second	F
7	Earliest J can be presented is 6th	T
8	L is presented before G	
9	S is presented first	T
10	L is presented fourth	



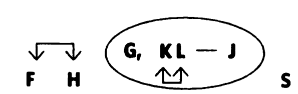
If F is presented third, H can be presented second or fourth, and it makes sense to try out both of these possibilities.

If H is second, K,L—J must go after it. Since G can't go first, that leaves S for first. G, K, L, and J occupy 4-7 with some severe restrictions.

If H is fourth, K,L—J must go after it. That leaves S and G for first and second. Since G can't go first, S must go first and G second. Notice S ends up first in both situations.

SET 3
condition: If S is presented last...

#	Possibility	t/f
1	F is presented second	
2	G is presented before J	
3	J is presented before G	
4	Either K or L is presented fourth	T
5	G is presented second	F
6	K is presented sixth	F
7	L is presented third	
8	Either G or J is presented sixth	T
9	H is presented third	F
10	G is presented after K	



If S is presented seventh, and G can't be presented first, F or H must be presented first. That means F or H must be second. G, and the K,L—J cluster must occupy positions 3—6, with some severe restrictions.

Seating Priorities

Imagine that you are the manager of a tiny, exclusive sushi restaurant. The restaurant seats just eight—most of the seats are clustered together, but some are set apart awkwardly. Each customer spends hundreds of dollars, and your job is to make sure that the customers are seated in such a way as to to maximize the number of people that can be served throughout the night.

Most customers come as couples, but some come in clusters of three or four. Others come alone. Some customers have requests, such as wanting to sit next to the sushi chef, or wanting to sit away from the bathroom. Others are fine sitting anywhere.

In trying to figure out where to place everyone, what are your priorities? It makes sense to prioritize the large groups (because they fill up a lot of seats, and because everyone else has to be fit around them) and to prioritize those awkward seats that are set apart. Who would you end up placing last? The customers who come alone and are happy to sit anywhere.

Over and over again, games questions present challenges that are very similar to the one that the restaurant manager faces: just as sushi restaurants tend to have seats in a row at the bar, or in groupings at tables, games present positions in an order, or in groupings. Our job is to figure out how to arrange the elements into these positions.

In Lessons 10-15, we stressed the importance of developing a diagramming system that you feel *comfortable* with--the reason is that, in order to answer questions, you will have to use your diagram over and over again to think about the various ways that the elements can be arranged.

In doing so, it's helpful to have some of the same instincts that the restaurant manager must have: you always want to prioritize the large groups ("clusters") and the positions that are very limited (what we will discuss as "the pinch"). Generally, by dealing with the large group first, you make the rest of the work you have in a question far easier on yourself, and generally, when you recognize a "pinch," that pinch will be directly relevant to the correct answer.

You also want to take note of those customers that come alone and can sit anywhere, or in game terms, the elements that don't have any rules or restrictions. You generally want to place these elements last, and it's always helpful for you to know that they can go anywhere. Below are examples that illustrate clusters and the pinches.

Sample Clusters

Imagine we are placing six elements in an order, and we have the following combination of positions and rules:

__ __ __ __ __ __

~~L~~

LM — R

Notice how limited we are in terms of where we can place the LM-R cluster. Also notice that once it gets placed, there would be only three open spaces remaining for you to consider.

Imagine we are splitting eight elements into two different groups:

__ __

__ __ $\boxed{F \atop G}$ $\boxed{F \atop \cancel{K}}$

__ __

__ __

Notice how even a two-element cluster can be fairly significant, especially when it is related to other rules. We know that F and G will always be together, and that K must be on the opposite team from them. That is likely to be critical information for the questions.

Sample Pinches

Imagine we are in the middle of playing an ordering game, and have the following board and rules:

M, N, R, S, T, W, X, Y

M R __ S __ __ __ T

S — X YW

Which element could go third? Notice that it must be N. No rule tells us so, but no other elements can go in that position.

Imagine we are assigning three members from two different groups to three games of chess:

Ke
Le
Me __ __ __ Ke → ~~Le~~
Rn
Sn __ __ __ Le → ~~Ke~~
Tn 1 2 3

For a question, we are told that 2 members of team "e" are assigned to the first game. What do we know? Since L and K can't be assigned together, M must be one of the e's assigned.

Full Question Drill

Here are the same games we used for the previous drill, this time with a few of the real questions that accompanied them when these games originally appeared on the LSAT. Use these questions to practice the problem-solving strategies that we've discussed. Once you have your diagram laid out, set a goal of three minutes or less for the three questions.

On a Tuesday, an accountant has exactly seven bills—numbered 1 through 7—to pay by Thursday of the same week. The accountant will pay each bill only once according to the following rules:

Either three or four of the seven bills must be paid on Wednesday, the rest on Thursday.
Bill 1 cannot be paid on the same day as bill 5.
Bill 2 must be paid on Thursday.
Bill 4 must be paid on the same day as bill 7.
If bill 6 is paid on Wednesday, bill 7 must be paid on Thursday.

1. If exactly four bills are paid on Wednesday, then those four bills could be

(A) 1, 3, 4, and 6
(B) 1, 3, 5, and 6
(C) 2, 4, 5, and 7
(D) 3, 4, 5, and 7
(E) 3, 4, 6, and 7

4. If bill 6 is paid on Wednesday, which one of the following bills must also be paid on Wednesday?

(A) 1
(B) 3
(C) 4
(D) 5
(E) 7

6. Which one of the following statements must be true?

(A) If bill 2 is paid on Thursday, bill 3 is paid on Wednesday.
(B) If bill 4 is paid on Thursday, bill 1 is paid on Wednesday.
(C) If bill 4 is paid on Thursday, bill 3 is paid on Wednesday.
(D) If bill 6 is paid on Thursday, bill 3 is also paid on Thursday.
(E) If bill 6 is paid on Thursday, bill 4 is also paid on Thursday.

PT 29, S 3, Q's 1, 4, 6

Full Question Drill

A college dean will present seven awards for outstanding language research. The awards—one for French, one for German, one for Hebrew, one for Japanese, one for Korean, one for Latin, and one for Swahili—must be presented consecutively, one at a time, in conformity with the following constraints:

The German award is not presented first.
The Hebrew award is presented at some time before the Korean award is presented.
The Latin award is presented at some time before the Japanese award is presented.
The French award is presented either immediately before or immediately after the Hebrew award is presented.
The Korean award is presented either immediately before or immediately after the Latin award is presented.

14. Which one of the following must be true?

(A) The French award is presented at some time before the Japanese award is presented.
(B) The French award is presented at some time before the Swahili award is presented.
(C) The German award is presented at some time before the Korean award is presented.
(D) The German award is presented at some time before the Swahili award is presented.
(E) The Swahili award is presented at some time before the Hebrew award is presented.

15. If the Hebrew award is presented fourth, which one of the following must be true?

(A) The French award is presented fifth.
(B) The German award is presented third.
(C) The Japanese award is presented sixth.
(D) The Korean award is presented fifth.
(E) The Swahili award is presented first.

16. If the German award is presented third, which one of the following could be true?

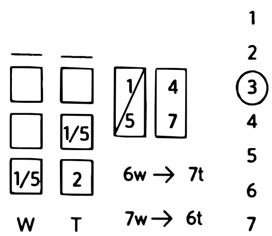
(A) The French award is presented fourth.
(B) The Japanese award is presented fifth.
(C) The Japanese award is presented sixth.
(D) The Korean award is presented second.
(E) The Swahili award is presented fifth.

PT 29, S 3, Q's 14, 15, 16

Full Question Solutions

On a Tuesday, an accountant has exactly seven bills—numbered 1 through 7—to pay by Thursday of the same week. The accountant will pay each bill only once according to the following rules:

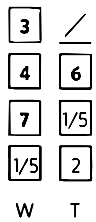
Either three or four of the seven bills must be paid on Wednesday, the rest on Thursday.
Bill 1 cannot be paid on the same day as bill 5.
Bill 2 must be paid on Thursday.
Bill 4 must be paid on the same day as bill 7.
If bill 6 is paid on Wednesday, bill 7 must be paid on Thursday.



Most of the time we associate numbers with positions, but in this case the numbers represent the elements to be placed. We want to be careful to read the conditional statements in only one direction (knowing that either 6 or 7 is on Thursday, for example, tells us nothing). The only significant up-front inference is that, since 1 and 5 cannot be on the same day, one of them must be on Wednesday, and one of them must be on Thursday. If you missed it initially, you may have picked it up as you solved the first question or two, in which case you'd want to make sure to write it back into your original diagram.

1. If exactly four bills are paid on Wednesday, then those four bills could be

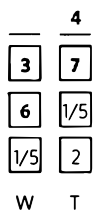
(A) 1, 3, 4, and 6
(B) 1, 3, 5, and 6
(C) 2, 4, 5, and 7
(D) 3, 4, 5, and 7
(E) 3, 4, 6, and 7



If four bills are paid on Wednesday, three are paid on Thursday. That means the 4 & 7 grouping must go in Wednesday. That means 6 must go Thursday, and 3 must go in the remaining spot. Since we've figured out so much, this is one rare "could be" where we could simply look for the right answer. However, it'll probably just take less than five seconds for us to also prove the wrong answers wrong, and it'll give us more confidence in our selection, so I would recommend you still use the elimination process here.

4. If bill 6 is paid on Wednesday, which one of the following bills must also be paid on Wednesday?

(A) 1
(B) 3
(C) 4
(D) 5
(E) 7



If 6 is paid on Wednesday, the 4 & 7 grouping must go on Thursday. That puts 3 into Wednesday.

6. Which one of the following statements must be true?

(A) If bill 2 is paid on Thursday, bill 3 is paid on Wednesday.
(B) If bill 4 is paid on Thursday, bill 1 is paid on Wednesday.
(C) If bill 4 is paid on Thursday, bill 3 is paid on Wednesday.
(D) If bill 6 is paid on Thursday, bill 3 is also paid on Thursday.
(E) If bill 6 is paid on Thursday, bill 4 is also paid on Thursday.

Since this is an unconditional question, we simply want to go down the answer choices looking for one answer that must be true. We can see, looking at the answer choices, that they will each require a bit of work from us.

We already know 2 is paid on Thursday, and that doesn't tell us anything about 3, so we can skip (A). If 4 is paid on Thursday, 7 is on Thursday, and 3 and 6 must go on Wednesday—that tells us nothing about 1, so we can skip (B). If 4 is paid on Thursday, 7 is paid on Thursday—that takes up all the slots for Thursday, and so 3 and 6 must go Wednesday. (C) must be true, and we can stop there and select the answer.

PT 29, S 3, Q's 1, 4, 6

Full Question Solutions

A college dean will present seven awards for outstanding language research. The awards—one for French, one for German, one for Hebrew, one for Japanese, one for Korean, one for Latin, and one for Swahili—must be presented consecutively, one at a time, in conformity with the following constraints:

The German award is not presented first.
The Hebrew award is presented at some time before the Korean award is presented.
The Latin award is presented at some time before the Japanese award is presented.
The French award is presented either immediately before or immediately after the Hebrew award is presented.
The Korean award is presented either immediately before or immediately after the Latin award is presented.

_ _ _ _ _ _ _
~~G~~

FH — KL — J

F
G
H
J
K
L
S

This is a fairly straightforward game, and a good example of one where we really benefit from taking a "lay of the land" look ahead of time, for recognizing that the second, third, fourth, and fifth rules relate to one another, and notating them together, as we have, can give us a great advantage when it comes to answers questions—the F, H, K, L, J cluster is a significant one that fills up much of the board for us.

14. Which one of the following must be true?

(A) The French award is presented at some time before the Japanese award is presented.
(B) The French award is presented at some time before the Swahili award is presented.
(C) The German award is presented at some time before the Korean award is presented.
(D) The German award is presented at some time before the Swahili award is presented.
(E) The Swahili award is presented at some time before the Hebrew award is presented.

This is an unconditional must-be-true question, so we just want to go down the list to identify one answer we know has to be true. (A) states that F must come at some point before J—since we drew the rules together, it's clear to see that (A) must be true. We can select it and move on.

15. If the Hebrew award is presented fourth, which one of the following must be true?

(A) The French award is presented fifth.
(B) The German award is presented third.
(C) The Japanese award is presented sixth.
(D) The Korean award is presented fifth.
(E) The Swahili award is presented first.

S G F H K/L K/L J
~~G~~

If H is fourth, there are exactly three spots behind it, and since we know that K, L, and J must all follow H, it stands to reason that they must fill in slots 5, 6, and 7. F must go in 3, and since G can't go in 1, it must go in 2. That leaves S to go in 1.

Now we go seeking an answer that must be true, and we find one in (E). Note (though this doesn't impact our process) that because we've figured out so much of the game, a few of our wrong choices are not only ones that *could be* false, but rather *must be* false.

16. If the German award is presented third, which one of the following could be true?

(A) The French award is presented fourth.
(B) The Japanese award is presented fifth.
(C) The Japanese award is presented sixth.
(D) The Korean award is presented second.
(E) The Swahili award is presented fifth.

KL — J , S
F/H F/H G _ _ _ _
~~G~~

Once we place G into 3, we are limited in terms of how we fit in our large grouping—we don't have enough space for all five elements in it—F, H, K, L, and J, to go after G, and so F and H must go before G. That leaves the remaining elements to follow G. The remaining elements are fairly limited in terms of where they can go, but it's a bit complicated to place elements into specific positions, and so a cloud works nicely here.

Now we're ready to evaluate answers. Since this is a could-be-true question, our hope and expectation is that the work we've done allows us to see that four answers must be false. That is indeed the case—with very little effort we can see that (A), (B), (D), and (E) are all not possible. That leaves (C) as the correct answer.

PT 29, S 3, Q's 14, 15, 16

27 LOGIC GAMES — minor question types

In the last lesson, we discussed the standard type of Logic Games question, one that whether it gives you a new condition to work with or not, requires you to differentiate all answer choices in terms of what is certain versus what is uncertain. A great majority of games questions will play out in this fashion.[1]

In this lesson, we will discuss the other types of questions that can also appear in the section. We already touched on one minor question type—the Rules question—in Lesson 22. You should expect to see a Rules question at the beginning of each of your four games. All of the other minor question types can be thought of as fitting into two general categories:

Several different minor question types ask that you consider a *variety* of possibilities, and we'll call these **Options questions.** For these questions, instead of thinking about what must be true, we want to focus on all of the different ways in which we can satisfy the rules of the game. This is a subtle but significant change in strategy and mindset.

Additionally, typically one question per section will require us to either substitute a rule for a different one, or (more commonly) substitute a rule for a matching one. We'll call these **Rule Change questions.** Rule Change questions typically come at the end of a game and can be some of the most intimidating, for they require us to "rethink" what we know about games, and by the time you get to the last question, the last thing you want to do is reorganize that picture you've finally been able to get in your head. The good news is that most of these Rule Change questions are not actually as difficult as they might at first seem. We'll discuss specific strategies that will help you get past them with the least possible difficulty.

Starting on the next page, using two simple games and diagrams as our reference points, we'll break each question type down in depth, and discuss question-specific strategies.

1. In a typical Logic Games section, expect to see 4 Rules questions, 15 - 17 standard questions, and 2 - 4 minor types of questions.

You read that right. Only 2 - 4 questions will require us to change our process.

As we discuss these specific question types starting on the next page, we'll use the terms "common" and "not common" to differentiate them—keep in mind that we are talking about common and uncommon relative to other minor question types, not relative to the section as a whole.

simple sample a

Six kids—M, N, O, P, R, and S—will take turns riding a horse. The following conditions apply:

S will not ride fifth.
P will take a ride after O does.
N will ride second.
M will ride immediately before O does.

$\underline{\quad}\ \underline{N}\ \underline{\quad}\ \underline{\quad}\ \underline{\quad}\ \underline{\quad}$

$\qquad\qquad\qquad\qquad\ \ \cancel{S}$

MO — P

M
N
O
P
R
S

options question type

tell me one thing...

not common

The earliest that O can ride the horse is
(A) 1st
(B) 2nd
(C) 3rd
(D) 4th
(E) 5th **(from sample a)**

This is not a question type that appears often, but it's one that is simple enough to understand and adapt to. "Tell me one thing" questions ask a particular question about a specific element or a position.

These questions, like the ones we discussed in the previous lesson, require you to think about what can and cannot be, but the difference is that these questions also often require you to choose from among a range of possibilities. In this case, our job is to select the earliest out of the range of spots in which O can go.

For these questions, the element or position discussed in the stem is almost always involved in some rule—in this case, the question is about O, and we know that O must immediately follow M. This rule, in turn, almost always interacts with another rule (or two): in this case, the MO group butts against the rule that N is in the second position. Almost always, it is the interaction between the relevant rule and another rule that determines the correct answer. In this case, since O must immediately follow M, and because N occupies the second spot, the earliest MO can go is the third and fourth positions, and so the earliest that O can go is fourth. (D) is correct.

There are two ways to confirm our answer for this type of question. One: make sure that placing O fourth is okay by drawing out one completed hypothetical that satisfies all the rules. Two: eliminate the "better" answers by confirming that O can't go in the third, second, or first spot. If it passes both those tests, you have the right answer.

wording issue

could.................complete

Let's imagine that you win three tickets to a concert from a local radio contest. The stipulation is that you must go with two people that you work with. You have four coworkers (whose names conveniently go in alphabetical order)—F, G, H, and J—who are all available to go.

I want to ask you two possible questions about this scenario:

1. Which of the following **could** be a **complete** list of coworkers that you take with you?
(A) F (B) F, G (C) F, G, H, J

2. Which of the following is a **complete** list of coworkers you **could** choose to take with you?
(A)F (B) F, G (C) F, G, H, J

The first is really a modified version of a "Could be True" question, and we can simply get to the right answer by eliminating answers that must be false. We can't take one person, and we can't take four, we can only take two. (B) is correct.

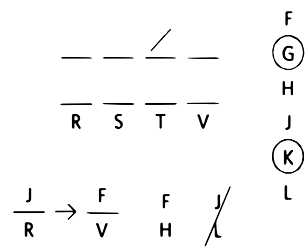
The second question is a very common form of the "Consider All Possibilities" questions discussed on the next page. We need to consider everyone who could be selected, and, since no rule excludes anyone, the correct answer—(C)—must include all four elements.

Both of these forms of wording questions are common on the exam, and they are probably the most frequently misread question stems that appear in the Games section. But if the above makes sense to you, they are easy enough to prepare for. Make sure, in your practice, to slow down to carefully understand the meaning correctly each time you see a question of either type, and take note any time you falter. With a little practice, you should have no trouble correctly understanding your task each time you see either stem.

simple sample b

Six animals—F, G, H, J, K, and L—will each be assigned to one of four cages—one red, one silver, one tan, and one violet. The following rules apply:

Each cage holds at least one, and at most two, animals.
If J is put in the red cage, F will be put in the violet cage.
J and L are not put in the same cage.
F and H are put in the same cage.
Only one animal is put in the tan cage.



options question type

consider all possibilities

common

Which of the following is a complete list of kids who could go third?
(A) S
(B) M, O, R
(C) M, R, S
(D) M, R, S, O
(E) M, R, S, P **(from sample a)**

How many different animals could be assigned to share a cage with J?
(A) 0
(B) 1
(C) 2
(D) 3
(E) 4 **(from sample b)**

This question type is also pretty self-explanatory—"Consider All Possibilities" questions require you to consider all options for the issue at hand—typically elements that can go in a certain position, positions certain elements can go into, or ways the entire game can be played out. These questions may or may not come with conditions (an example with a condition could be, "If M goes third, how many different elements could go first?") In such a case, we want to just play out the condition as we always do, then answer the question accordingly.

When you think about the positions or elements in question, it's important to consider what could be (for example, maybe you already know from our previous work that M could go third). More importantly, you need to think about what can't work. What can't work is, typically, what defines the question (i.e., the answer includes all elements except those we know can't go in a position). In addition, what we know about what can't work can help us eliminate incorrect answer choices.

Let's talk more specifically about this first question. We are being asked to find an answer that contains all of the elements that could go in the third spot (see opposite page for more about this dangerous question stem).

Again, let's imagine we know, from work done on a previous question, that M is definitely a possibility. Now let's consider—what elements are NOT able to go in the third slot? O can't, because M can't go second. Neither can P, which must follow MO. We know N can't because it's already in position 2.

Let's look to eliminate answers that are missing M, or contain O, P, or N. When we do so, we get rid of (A), (B), (D), and (E), leaving us with (C) as the correct answer. At this point we should move on, but if you are nervous at all, you could certainly come up with some hypotheticals to confirm that R and S can work in the position.

In most instances, once you eliminate based on "can'ts," you will be left with just one or two answers to evaluate critically. If you have more than one choice, focus on differences between the answer choices. For example, imagine we were able to get down to (B) or (C) using our elimination process. At that point, we would focus on testing O and S (rather than M or R), because O and S are what differentiate those answer choices.

The second question doesn't ask about specific elements, but we must do the same type of work as before in order to come up with a total number. We don't have a clear sense of who can go with J, but we know from the other rules that F, H, and L all cannot go with J. That leaves G and K. We know the answer is most likely going to be "2," but if we are wrong, it's going to be an answer smaller than 2 (since we know for sure 2 is the MOST than can work). Considering both G and K are free agents (helpful that we circled them in our diagram) we should be fine pairing either with P, but if you aren't certain, you can create hypotheticals to test them out. Indeed either can work with J, and (C) is correct.

simple sample a

Six kids—M, N, O, P, R, and S—will take turns riding a horse. The following conditions apply:

S will not ride fifth.
P will take a ride after O does.
N will ride second.
M will ride immediately before O does.

__ N __ __ __ __

~~S~~ (under fifth slot)

MO — P

M
N
O
P
R
S

options question type

complete the puzzle

not common

Which of the following, if true, determines the order of rides?
(A) M rides third
(B) M rides fourth
(C) P rides fifth
(D) S rides first
(E) S rides last **(from samplea)**

"Complete the Puzzle" questions are some of the only ones for which you should *expect* to do at least some work with the answer choices themselves (see inset to right). There is no way to know the answer based on the question stem, and it's a mistake to predict the answer before you see which ones you are actually given. The nature of the question requires that we think of each answer individually, by relating the information that answer presents to what we already know about the game.

The question then becomes "how much work should I do for each answer?" and the best performers are those who have the best instincts about this particular issue. In general, if you understand the game well, it will be easier to find a right answer than it will be to eliminate wrong ones. When an answer is correct, and when you understand a game well, there will be a natural progression of inferences, and often, before you know it, the slots will be filled. When an answer is incorrect, you end up at a point where the game could go a few different ways, and though you will be pretty sure that means the answer doesn't determine all positions, the weaker test taker will be concerned he or she is missing some key inferences.

For the question above, (A) - (D) all lead to a few inferences, but none allow us to completely finish the picture. (E), the correct answer, allows us to do so fairly easily—if S goes in six, MO-P must go in 3-4-5, and so R must go in 1. Again, the key to success on these questions is typically to move on when you get to a point of uncertainty with answers, and to search out the one answer that leads to a quick string of inferences.

strategy issue

how much work should you expect to do with the answers?

Not much. In general, if you are performing well on the Logic Games section, you should expect that just a few questions—no more than three or four in a section—will cause you to do significant "work" with the answer choices.

In general, most of the important work that leads to the right answer will have been done in your initial setup of the game and in the question stem. When you play games well, selecting the correct answer often feels like the easiest step of all—a reward for all of the great work you've done up to that point: you know a game well, so you can tell what can't be true, or you've worked off the condition correctly, and so you know what must be true, and so on. For the questions we discussed on the previous page, you should be able to anticipate the right answer before seeing your choices.

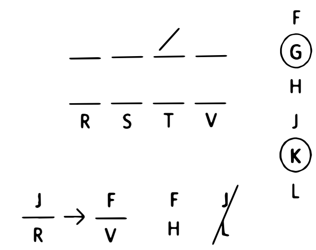
A few questions, per their design, *require* that you do work with each answer choice. Complete the Puzzle questions are like that, as are the Same Effect questions we'll discuss on the next page. For these questions, the only way to get to a right answer is to flesh out each answer choice.

In other instances, we will need to do work with the answer choices because we have not taken advantage of all of our opportunities—that is, we'll need to do work with the answer choices because we missed something earlier. This is going to happen to all of us—we all have to grind it out with games sometimes because we've missed something. However, keep a few things in mind. First, know that this is not the norm, and that if you have to do work with every answer for every question, it's a sign you've misunderstood the game. Second, as you train with more and more games, use the work you have to do with the answer choices as a gauge—having to do less and less work by the time you get to answer choices is one of the key signs of games progress.

simple sample b

Six animals—F, G, H, J, K, and L—will each be assigned to one of four cages—one red, one silver, one tan, and one violet. The following rules apply:

Each cage holds at least one, and at most two, animals.
If J is put in the red cage, F will be put in the violet cage.
J and L are not put in the same cage.
F and H are put in the same cage.
Only one animal is put in the tan cage.



options question type

minimum/maximum

common

If S is before P, what is the minimum number of children who can ride after S but before P?
(A) 0
(B) 1
(C) 2
(D) 3
(E) 4
(from sample a)

If R is before P, what is the maximum number of chlidren who can go after R and before P?
(A) 0
(B) 1
(C) 2
(D) 3
(E) 4
(from sample a)

The last of our "Possibilities" questions is the "Minimum/Maximum" question. Minimum and Maximum questions most frequently appear with ordering games or grouping games for which there is great uncertainty about the number of elements in each group. These questions, like the "tell me one thing..." question that asks for the "earli*est*," asks us to identify one possibility out of many as the "*-est*"— in the first question above, the small*est* possible space between S and P, and in the second question, the larg*est* possible space between R and P.

For these questions, I recommend a two step process—try out and confirm. Typically, when you are presented with such a question, you will have some sense, based on what you know of the rules, as to what might be the correct answer. Go ahead and try that out, and make sure that indeed the maximum or minimum you guessed does work. That's the *try* out part.

Once you have the answer, look at the other answer choices and make sure to eliminate the "better" answers. For a Minimum question, better answers would be those that present a smaller number. For a Maximum question, the "better" answers would be the larger numbers.

Let's play this out on our two questions above. The first question asks about the minimum number of children who can go after S but before P. Can it be 0? The only way would be to have M, O, S, P in 3 - 6, but S can't go in 5. S must go first and the earliest P could go in that situation is fifth (S, N, M, O, P, R). That leaves us with three elements after S but before P.

To confirm our answer, we want to eliminate better choices. Is 2 a possibility? I try it a few different ways, and it actually is—we can put S in the third spot, and have it be R, N, S, M, O, P. That would put two elements between S and P. Could 1 work? I try a few different ways, but nothing works. I already know 0 doesn't work. 2, answer choice (C), is correct.

For the second question, we want to put as many elements between R and P as possible. There doesn't seem to be a reason we can't put R first and P last—let's try it out. We find a combination that works: R, N, S, M, O, P. That gives us four elements in between the two. Since there are no bigger numbers to try, we know we have the correct answer, (E).

INSTRUCTIONS FOR GAME ON NEXT PAGE: On the next page is a game with an example of each of the four question types we've discussed. Keep in mind that no actual game would ever have so many minor questions. Set a goal of completing your setup and answering all questions in seven minutes or less. Warning: solutions will be on the opposite page.

POSSIBILITIES QUESTIONS | Diagram this game and solve the Possibilities questions to the best of your ability.

Four members of the red team—F, G, H, and J—compete against three members of the purple team—K, L, M—in a five-mile race. They finish according to the following conditions:

K finishes after G but before F.
Exactly one person from the purple team finishes in the top three.
L finishes fifth.
J finishes immediately before M, or M finishes immediately before J.

1. If K finished sixth, what is the latest that M could have finished?
(A) first
(B) second
(C) third
(D) fourth
(E) seventh

2. If K finished third, in how many different orders could the racers have finished?
(A) 1
(B) 2
(C) 4
(D) 5
(E) 6

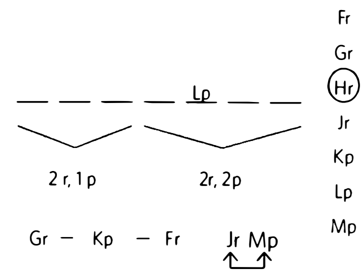
3. Which of the following, if true, determines the order of finish for all racers?
(A) K finishes immediately after G and immediately before L.
(B) K finishes immediately after H and immediately before F.
(C) L finishes immediately after H and immediately before K.
(D) L finishes immediately after F and immediately before M.
(E) L finishes immediately after H and immediately before M.

4. What is the minimum number of racers that finished between K and M?
(A) 0
(B) 1
(C) 2
(D) 3
(E) 4

POSSIBILITIES QUESTIONS SOLUTIONS

Four members of the red team—F, G, H, and J—compete against three members of the purple team—K, L, M—in a five-mile race. They finish according to the following conditions:

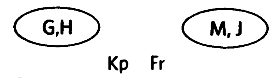
K finishes after G but before F.
Exactly one person from the purple team finishes in the top three.
L finishes fifth.
J finishes immediately before M, or M finishes immediately before J.



1. If K finished sixth, what is the latest that M could have finished?
(A) first
(B) second
(C) third
(D) fourth
(E) seventh

If K finished sixth, that means F finished seventh. It also means that G must go in one of the first four slots. Most importantly, it means that M must be the purple member who finishes in the top three. The latest M could finish in this case is third. (C) is correct.

2. If K finished third, in how many different orders could the racers have finished?
(A) 1
(B) 2
(C) 4
(D) 5
(E) 6



If K finished third, J and M must finish in 6 & 7 (either as JM or MJ). F must finish fourth. G and H must finish in 1 & 2 (either as GH or HG). Since there are two different options for the first two slots, and two options for the last two, together there are four (2 X 2) different ways the racers could have finished. (C) is correct.

3. Which of the following, if true, determines the order of finish for all racers?
(A) K finishes immediately after G and immediately before L.
(B) K finishes immediately after H and immediately before F.
(C) L finishes immediately after H and immediately before K.
(D) L finishes immediately after F and immediately before M.
(E) L finishes immediately after H and immediately before M.

With (A), the elements in 1,2,6 and 7 are unclear. With (B), the elements in 6 and 7 are unclear. With (C), the elements in 1, 2, and 3 are unclear. With (D), the elements in 1, 2, and 3 are unclear. (E) puts H in 4, L in 5, and M in 6. That means G-K-F must go in 1-2-3, and J must go in 7. We have the complete order: G, K, F, H, L, M, J. (E) is correct.

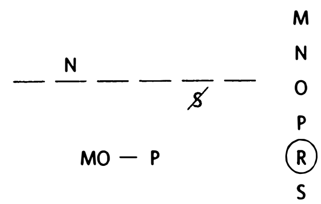
4. What is the minimum number of racers that finished between K and M?
(A) 0
(B) 1
(C) 2
(D) 3
(E) 4

If you place K third, and M sixth, there would be two elements between them. Is there a way to get them closer? Yes, by placing the JM grouping within the G-K-F link. G, J, M, K, L, F, H, gives us 0 spaces between K and M. (A) is correct.

simple sample a

Six kids—M, N, O, P, R, and S—will take turns riding a horse. The following conditions apply:

S will not ride fifth.
P will take a ride after O does.
N will ride second.
M will ride immediately before O does.



rules change type

same effect

common

Which of the following, if substituted for the rule that P will take a ride after O does, would have the same effect on determining the order in which the children ride?
(A) P rides no earlier than fourth.
(B) O rides no later than fifth.
(C) P rides after N.
(D) M rides after N but before P.
(E) O rides immediately before P.

(from sample a)

Which of the following, if substituted for the rule that if J is put in the red cage, F will be put in the violet cage, would have the same effect on determining the order in which the children ride?
(A) If F is put in the violet cage, J will be put in the red cage.
(B) If J is not put in the red cage, H is not be put in the violet cage.
(C) If H is put in the silver cage, J is not put in the red cage.
(D) J and F cannot be put in the same cage.
(E) If J is placed with another animal, it must be G or K.

(from sample b)

Whether you have five $20 bills in your pocket, or two $50 bills, it's the same amount of money. Same Effect Rules Change questions work a similar way: they require us to find an answer choice that has the same effect as one of the original rules. This is a fairly new question type, but almost every exam over the last couple of years has contained exactly one Same Effect question (always as the last question of the game in which it appears).

If these questions seem a bit intimidating, they should: if the test writers wanted to, they could make these types of questions particularly cruel, especially by creating clever right answers and close-but-no-cigar tempting wrong answers.

So far, the test writers have chosen not to be as cruel as they can be with these questions, and I expect this trend to continue. The test writers have an obligation to create questions that can be solved in a reasonable amount of time (having a question that takes everyone five minutes to solve would completely screw up their testing algorithm), and, just by their nature, even the easiest of these questions is fairly challenging and time-consuming. All that is to say, there is a ceiling on how tough they can make any one question and this limits how creative or complex these questions can get. Here is what is most important for you to know about these questions:

1. In general, right answers are fairly closely related to the rule that they are meant to replace. In several instances, the right answer has been a rewording (think contrapositive). Otherwise, they typically require just a small, understandable inference.

Let's take a look at the question related to Sample A. We need to find an equivalent for the rule that gives us O - P. We can see that that rule is connected to the MO rule. So, we can anticipate that they could replace O - P with M - P and have the same effect.

(D) gives us M - P, but it also tells us M must go after N. Is that addition okay? Sure it is. M must always go after N anyway, so it doesn't change the game in any way. (D) is the correct answer.

That last part was a bit sneaky, huh? Well, you can make your life a lot easier by first getting rid of the wrong choices. Here's the second important thing for you to know about these questions:

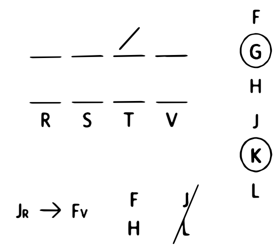
2. In general, wrong answers are clearly wrong—that is, if you understand the game and the rule in question well, the differences in effect should be obvious.

This fact becomes clearly evident when we take an aggregate look at all of the same effect questions that have appeared over

simple sample b

Six animals—F, G, H, J, K, and L—will each be assigned to one of four cages—one red, one silver, one tan, and one violet. The following rules apply:

Each cage holds at least one, and at most two, animals.
If J is put in the red cage, F will be put in the violet cage.
J and L are not put in the same cage.
F and H are put in the same cage.
Only one animal is put in the tan cage.



rule change type

same effect (con't)

not common

time (which I have had the pleasure of doing!). Arguably, only one or two of all the wrong choices that have appeared have been what I would deem "clever" or "sneaky." The rest of them have all been fairly obviously wrong.

Therefore, I strongly recommend that you emphasize the elimination part of your process. I believe it is the key to success on these questions. For the question at hand, (A) could place P before MO, (B) doesn't get at the O - P relationship, nor does (C), and (E) gives a more specific relationship than our original rule does.

Here are the steps I recommend:
(1) Go back to the original rule and review it carefully.
(2) Look at what other rules it relates to and anticipate simple ways the original rule could be adapted/reworded for the same effect.
(3) Eliminate wrong choices that change the impact, have a greater impact, or don't have as much of an impact as the original rule.
(4) Confirm that the remaining answer does the same, no more or less, as the original rule does. Remember, most right answers are cloaked rewordings, or they work off a slight and direct inference.

Looking at the question for Sample B, we know the rule in question is JR → Fv . We know F and H must go together, so we can anticipate that H might be swapped for F. We also know they can write the contrapositive version (so we've got JR → Hv, and ~~Hv~~ → ~~JR~~ as possibilities).

(A) gives us Fv → JR, a reversal we know is incorrect (too easy—do they know who they are messing with?). (B) gives us a negation (with H in for F) which we also know is incorrect. (C) is strange (silver?) but interesting. Let's try the contrapositive: JR → ~~Hs~~, which means JR → Hv, which means JR → Fv. Ha! It's what we were looking for (in a form we didn't expect). (D) is far too vague (and we already know it per another rule), and while (E) is true, it clearly doesn't give us the same information as the original rule. The other answers have obvious issues, and (C) is correct.

rules change type

different effect

very rare

Questions for which a rule will change to one with a different impact used to be a bit more frequent, but as Same Effect questions have become more common, Different Effect questions have become far less so—only one has appeared on any exam in the last few years, so we won't spend too much time discussing them here.

The difficulty of the Different Effect question is, in general, dependent on how many connections there are between the rule in question and the other rules of the game. After you read the question stem, quickly go to your diagram to identify the rule in question, and to consider the ways in which that rule links with other rules and leads to inferences. If there is just one link there, and only one or two inferences to be made, you may be able to re-envision the scenario in your head with a new rule in place. Whenever this is possible, this will be the quickest path to the answer.

The toughest Rule Change questions involve rules that relate to many other rules, and have a lot of "must be" and "could be" consequences on the game. In these situations, it's generally best to redraw a new diagram with the substituted rule before going into the questions. I know what you are thinking ("I don't have time for a new diagram!") but you'll be surprised how quickly you can whip up a new diagram when you are comfortable with the one you already have (the Different Effect question will likely be the last question of that game). Once you have a strong sense of the impact of the rule change, work to eliminate answers. Down to one or two attractive choices, make sure to select your answer after checking that it works with all of the *other* rules of the game.

RULES QUESTIONS | Diagram this game and solve the Rules Change questions to the best of your ability.

A country band will play six of the eight songs—Fight, Get Drunk, Honey I'm Sorry, Just Kidding, Kiss Me, Leave Me Alone, Miss You, and Nevermind—on their new album during a concert. They will play no other songs. The order of the songs played must conform to the following conditions:

Just Kidding will be played after Get Drunk.
Honey I'm Sorry will be played before Miss You.
If Nevermind is played, it will be played third.
If Fight is not played, Leave Me Alone will be.
Honey I'm Sorry will be played right before or right after Just Kidding.

1. Which of the following, if substituted for the rule that Just Kidding will be played after Get Drunk, would have the same effect on the order of songs played?
(A) Get Drunk will be played before Miss You.
(B) Get Drunk will be played before Honey I'm Sorry
(C) At least two songs will be played after Get Drunk and before Miss You.
(D) At most two songs will be played after Get Drunk and before Miss You.
(E) Get Drunk must be one of the first three songs played.

2. Which of the following, if substituted for the rule that if Fight is not played, Leave Me Alone will be, would have the same effect on the order of songs played?
(A) They will play Leave Me Alone only if they don't play Fight.
(B) They will play Fight only if they don't play Leave Me Alone.
(C) Either Fight or Leave Me Alone is played.
(D) Either Fight or Leave Me Alone is not played.
(E) Either Kiss Me or Nevermind is played.

(Challenge) 3. Which of the following, if substituted for the rule that if Fight is not played, Leave Me Alone will be, would have the same effect on the order of songs played?
(A) They will play Kiss Me or Nevermind, but not both.
(B) If they play Kiss Me, they will not play Nevermind.
(C) If they play Fight, they will not play Leave Me Alone.
(D) If they play Fight, they will play either Kiss Me or Nevermind, but not both.
(E) They cannot play both Fight and Leave me Alone.

4. Suppose that instead of Just Kidding being played after Get Drunk, we had Get Drunk being played after Just Kidding. If all other restrictions stay the same, which of the following could be the order of songs played?
(A) Just Kidding, Get Drunk, Honey I'm Sorry, Miss You, Leave Me Along, Kiss Me
(B) Miss You, Honey I'm Sorry, Just Kidding, Get Drunk, Kiss Me, Leave Me Alone
(C) Just Kidding, Honey I'm Sorry, Get Drunk, Nevermind, Leave Me Alone, Miss You
(D) Just Kidding, Honey I'm Sorry, Nevermind, Miss You, Get Drunk, Leave Me Alone
(E) Leave Me Alone, Kiss Me, Nevermind, Just Kidding, Honey I'm Sorry, Get Drunk

RULES QUESTIONS SOLUTIONS

A country band will play six of the eight songs—Fight, Get Drunk, Honey I'm Sorry, Just Kidding, Kiss Me, Leave Me Alone, Miss You, and Nevermind—on their new album during a concert. They will play no other songs. The order of the songs played must conform to the following conditions:

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Honey I'm Sorry will be played right before or right after
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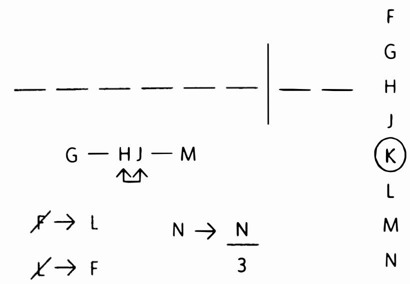

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(E) Get Drunk must be one of the first three songs played.

2. Which of the following, if substituted for the rule that if Fight is not played, Leave Me Alone will be, would have the same effect on the order of songs played?
(A) They will play Leave Me Alone only if they don't play Fight.
(B) They will play Fight only if they don't play Leave Me Alone.
(C) Either Fight or Leave Me Alone is played.
(D) Either Fight or Leave Me Alone is not played.
(E) Either Kiss Me or Nevermind is played.

We want to start by looking at the rule in question in our diagram. G is before J, and we know that's equivalent to being before H. (B) gives us that relationship, and is thus correct. (A) doesn't give us the relationship between G and J. (C) and (D) give a more specific relationship than the original rule, and don't relate to G and J directly. (E) allows for J to be before G.

Notice that the rule in question is not directly connected to any other rule. That means that most likely the right answer will be a rephrasing of the original rule. (C) is a fairly simple rephrase of what we know and it is the correct answer—it tells us that if either F or L is out, the other must be in. "Only if" in (A) gives us the wrong relationship: L → ~~F~~. Same with (B). (D) doesn't guarantee that F or L is played. (E) does not tell us that either F or L must be played.

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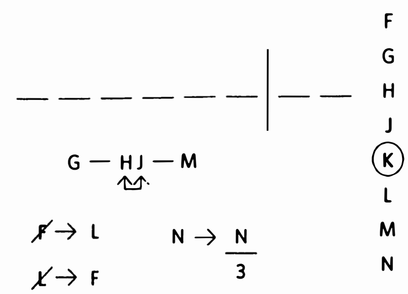
Honey I'm Sorry will be played right before or right after Just Kidding.



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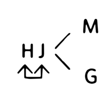
(D) If they play Fight, they will play either Kiss Me or Nevermind, but not both.
(E) They cannot play both Fight and Leave me Alone.

Here's the same question, but with more complicated answers to consider. On the real exam, I would look for a quick rephrase answer (like the one for question 2) first, then, realizing we don't have one, look for a creative answer that tells us the same information as the original rule. Remember, what the original rule told us is that either L or F has to be in—if either is out, it will force the other in. It's also helpful to remember that there are six *in* slots and two *out* slots, and we already know of four elements (G, H, J, and M) that must be in. (A) is a very tempting answer, because it would force F or L in. However, (A) makes it so that exactly one of them—either F or L, but not both—are in. That's different from the original rule. (B) tells us that they can't play both K and N at the same time. That means that either F, L or both need to be played. This is the information we needed, and (B) is correct. Notice that (C), (D), and (E) are all answers that give us consequences for *if* F or L is played—we need to know that F or L is played, not what happens if one of them is played, and if you can see that you can eliminate (C) - (E) fairly quickly. None of those answers force F or L in.

Note that this question represents an extreme case situation, and it is extremely unlikely that you will see such a challenging right answer on your real exam.

4. Suppose that instead of Just Kidding being played after Get Drunk, we had Get Drunk being played after Just Kidding. If all other restrictions stay the same, which of the following could be order of songs played?
(A) Just Kidding, Get Drunk, Honey I'm Sorry, Miss You, Leave Me Along, Kiss Me
(B) Miss You, Honey I'm Sorry, Just Kidding, Get Drunk, Kiss Me, Leave Me Alone
(C) Just Kidding, Honey I'm Sorry, Get Drunk, Nevermind, Leave Me Alone, Miss You
(D) Just Kidding, Honey I'm Sorry, Nevermind, Miss You, Get Drunk, Leave Me Alone
(E) Leave Me Alone, Kiss Me, Nevermind, Just Kidding, Honey I'm Sorry, Get Drunk

When a question stem changes a rule, you generally want to redraw the game. The act of redrawing will help you think about the implications of the rule change, and having a visual will also help you evaluate answer choices more quickly and easily. Depending on the complexity of the rule, diagram, or game, you may choose to redraw the entire picture, or just the part in question, and reference the original diagram for the positions and other rules as we've done here. Per our new drawing below, (A) can't be true, (B) can't be true, (C) can't be true because N is not in third, and (E) is missing Miss You. (D) is correct.



THE MINOR QUESTIONS GAME | Here's a full game's worth of minor questions. Solve to the best of your ability.

Eight workers—F, G, H, L, M, N, O, and P—are split into two shifts—the first shift and the second shift. The following conditions apply:

P and N will work the same shift.
P and H will work different shifts.
If L works the first shift, N and O will work the second shift.
If G works the second shift, H will work the first.
F works the second shift.

1. Which of the following could be a complete list of workers for the first shift?
(A) G, M, N, P
(B) G, M, N, O
(C) G, L, M, N, P
(D) F, G, N, P
(E) M, N, O, P

2. Which of the following, if true, determines all members for each shift?
(A) G, N, and P all work the first shift
(B) G, N, and O all work the first shift
(C) M, N, and O all work the first shift
(D) G, H, and M all work the first shift
(E) G, H, and L all work the first shift

3. Which two members cannot be on the same shift?
(A) H and N
(B) G and H
(C) L and N
(D) L and O
(E) M and O

4. Which of the following is a complete list of workers, any one of whom can work on the first shift with H?
(A) G, L
(B) G, L, M
(C) G, L, M, O
(D) F, G, L, M, O
(E) F, G, L, M, N, O

5. What is the maximum number of people who can work the second shift?
(A) 3
(B) 4
(C) 5
(D) 6
(E) 7

6. Which of the following, if substituted for the rule that P and H will work different shifts, would have the same effect on the order of songs played?
(A) If N works the first shift, H will work the second.
(B) If N does not work the first shift, H will.
(C) N will work the first shift if, and only if, H works the second.
(D) If P works the first shift, so will G.
(E) P will work the first shift if and only if G works the first shift.

7. If the rule that P and N will work the same shift is replaced by a rule that P and N will work different shifts, which of the following could be a complete list of people who work the first shift?
(A) H, N, L, M, O
(B) G, L, O, P
(C) G, H, M, O
(D) G, M, P
(E) G, L, P, H

THE MINOR QUESTIONS GAME SOLUTIONS

Eight workers—F, G, H, L, M, N, O, and P—are split into two shifts—the first shift and the second shift. The following conditions apply:

P and N will work the same shift.
P and H will work different shifts.
If L works the first shift, N and O will work the second shift.
If G works the second shift, H will work the first.
F works the second shift.

G				F
P	F			P
N	H		H	N
1	2		1	2

$L_1 \rightarrow N_2$ & O_2 $\quad$ $G_2 \rightarrow H_1$

N_1 or $O_1 \rightarrow L_2$ $\quad$ $H_2 \rightarrow G_1$

Since we know that P and N must go together, and H must go in the other group, and since there are only two ways this can work per the scenario, it makes sense to draw two diagrams for this situation. We can put P and N in shift one and H in shift two for Diagram 1, and P and N in shift two and H in shift one for Diagram 2. We can note the other conditional rules below, and we're able to make an inference about G for Diagram 1.

1. Which of the following could be a complete list of workers for the first shift?
(A) G, M, N, P
(B) G, M, N, O
(C) G, L, M, N, P
(D) F, G, N, P
(E) M, N, O, P

We want to answer this Rules question by using the rules to eliminate incorrect choices. The first rule allows us to get rid of (B). The third (C). The fourth (E). The last (E). That leaves us with (A) as the correct answer.

2. Which of the following, if true, determines all members for each shift?
(A) G, N, and P all work the first shift
(B) G, N, and O all work the first shift
(C) M, N, and O all work the first shift
(D) G, H, and M all work the first shift
(E) G, H, and L all work the first shift

The key to a question like this is to not spend too much time on the wrong answers. If an answer leaves you uncertain of where to place elements, don't over-think it—it's likely not correct. (A) doesn't determine where O and M go. (B) doesn't determine where M will go. (C) forces us to use Diagram 1, and if M, N, and O work the first shift, we have M, N, O, G, P in the first, and F, H, and L in the second. (C) is correct. On the test you should choose (C) and move on, but... (D) leaves L and O uncertain, and (E) leaves M uncertain.

3. Which two members cannot be on the same shift?
(A) H and N
(B) G and H
(C) L and N
(D) L and O
(E) M and O

We know that since P and N must be together, and P and H cannot, N and H can't be together. For a question like this, you definitely want to pick and move on, without wasting time on the wrong choices. (A) is correct.

4. Which of the following is a complete list of workers, any one of whom can work on the first shift with H?
(A) G, L
(B) G, L, M
(C) G, L, M, O
(D) F, G, L, M, O
(E) F, G, L, M, N, O

If H works the first shift, we know F, P, and N must work the second. That leaves us with G, L, M, and O as options. Looking at the rules, there is nothing that prevents any one of those elements from working the first shift when H does. (C) is correct.

5. What is the maximum number of people who can work the second shift?
(A) 3
(B) 4
(C) 5
(D) 6
(E) 7

Diagram 1 has a minimum of three people already on the first shift, so if we want to maximize the second shift, we want to work with the Diagram 2. Diagram 2 starts with H in shift 1, and F, P, and N in shift 2. G, L, M, and O are free to be placed. Is there any reason any one of them cannot be placed in the second shift? Not at all. If it were the first shift the conditional rules would have an impact, but there is no reason all of those elements can't be in the second shift together. Thus, the most that can work together on the second shift is seven—all workers minus H. (E) is correct.

6. Which of the following, if substituted for the rule that P and H will work different shifts, would have the same effect on the order of songs played?
(A) If N works the first shift, H will work the second.
(B) If N does not work the first shift, H will.
(C) N will work the first shift if, and only if, H works the second.
(D) If P works the first shift, so will G.
(E) P will work the first shift, if and only if, G works the first shift.

We know that P and N have to work the same shift, and so being told that H and N work different shifts would be the same as being told that P and N work different shifts. So, perhaps we anticipate an answer that tells us that H and N work different shifts, and (C) does that for us. The *if and only if* works as a biconditional that basically tells us that N and H can't work the same shift. (A) doesn't put P and H on opposite shifts if H works the second shift. (B) doesn't put P and H on opposite shifts if H works the first shift. (D) and (E) have an indirect impact on H and can be quickly eliminated. (C) is the correct answer.

7. If the rule that P and N will work the same shift is replaced by a rule that P and N will work different shifts, which of the following could be a complete list of people who work the first shift?
(A) H, N, L, M, O
(B) G, L, O, P
(C) G, H, M, O
(D) G, M, P
(E) G, L, P, H

The P/N rule is so central to our diagram that if we are forced to change it, it makes sense for us to redraw our entire diagram, as we've done to the right. Per this new diagram, (D) is the only possible answer, and (D) is correct.

	F			L
G	H		H	F
P	N		N	P
1	2		1	2
(L, O, M)			(G, O, M)	

How Did You Do?

This was a particularly full lesson. Not only did we discuss a large variety of question types, you were also challenged by several difficult games with tough questions attached. Congratulations on getting through it all.

Much of this book has been devoted to discussing the behavior and characteristics of top scorers, but it can also be helpful to think about the challenges that are common to those who don't perform as well as they could. Below is a list of some of the most common characteristics of people who underperform in the games section.

six common characteristics of underperformers

don't let these descriptions fit you!

1. **They have trouble seeing the "big picture" for a game.** This is often due to inadequate preparation—not being exposed to the different types of issues that can appear in games, and not having a sense of how these issues relate to one another. This can also be due to poor strategy—for example, certain learning systems encourage students to start drawing their diagram as soon as they start reading the scenario, a strategy that is almost certain to lead the test taker to miss the forest for the trees.

2. **Their notations do not accurately reflect the rules.** This can be due to the fact that the test taker does not understand the rules as specifically as he or she should, or has not practiced enough to be comfortable notating rules in a specific fashion. Underperformers represent some rules perfectly, a few incorrectly, and many "pretty well, but not exactly." This will prevent them from thinking about questions at an advanced level.

3. **They cannot think of games intuitively and have trouble making inferences.** This is very much related to the two points mentioned above, for in order to have the capacity to think about how rules come together, you have to have a big picture understanding, and you have be free from having to consciously think about what your notations actually mean—you have to be able to focus on just using those notations to think about the game itself.

4. **They misread.** Even though the Logic Games section is mostly a test of your reasoning ability, there are plenty of reading challenges all over the place: think of the difference between *if* and *only if*, and the difference between "complete list of those that could," and "could be a complete list."

5. **They misallocate time.** This is due to bad timing strategy or lack of timing strategy/ lack of self-restraint. Characteristics include wasting timing during the setup by creating unnecessary hypotheticals and chasing inferences that aren't there, taking drastic timing measures such as deciding to skip entire games, and wasting a disproportionate amount of time on the hardest questions, only to run out of time for the easier ones.

6. **They don't use question-specific approaches.** Most commonly, this is simply due to a lack of thought—most test takers do not think about question-specific strategies. To illustrate the consequence of this, let's just think of one common question type: an unconditional Must Be False. The prepared student focuses on finding the one answer that must be false. The misguided student will waste a lot of time trying to confirm that the other answers, which we often won't know a whole lot about, could definitely be true. Students who don't think about their process at all are also liable to waste time thinking about whether answers could be false. It's likely all five answers to a question like this can be false, and knowing that an answer can be false gets us no closer to knowing which one *must* be false.

28 LOGIC GAMES the good and the great

We've covered a lot of ground. And if you feel comfortable with the material you've seen thus far, know that you are in great shape. In fact, I guarantee that, just based on the work we've done thus far, you are far more prepared for the Logic Games section than the vast majority of people who will take the exam. Perhaps you are even thinking to yourself that if everything goes perfectly—if you really nail each of the four games that you see—there might be a -0 in your future.

It's not going to happen.

I'm not talking about the -0 part. My hope is that that is the outcome for a great many of you. I'm talking about the playing each game perfectly part. You are not going to be perfect on all four games.

Perfection is not necessary, and the pursuit of it can sometimes prevent you from just getting on with it and getting the job done

What a jerk I am! How can I say such a thing? For one, I've never been able to do it, and I teach this stuff for a living. I've never done a full section, then looked back at it, and said to myself, "Yup, I set up each diagram perfectly, and I used the most efficient process for every single question." Any time I've reviewed my work, I've noticed better ways to diagram or notate, inferences missed, and time wasted in the problem-solving process. Perfection is not necessary, and the pursuit of it can sometimes prevent you from just getting on with it and getting the job done. Even though I never solve all four games perfectly, I never have trouble with timing, and I can't remember the last time I missed a question. You don't need to be perfect to get a perfect score. Let me say that again: you don't need to be perfect to get a perfect score. What you need to do is to always be good, and sometimes be great. Here's how I define that:

Always Good

No matter what, I will never misunderstand the general instructions for a game. Sometimes, it will be difficult for me to see it correctly, and sometimes the process will take me longer than I would like, but I know that I'm setting myself up for failure if I go into the questions having not understood, or having misrepresented, a rule.

I may misunderstand a rule initially (it happens), but I go carefully enough, and I have enough checks built in, that I never go into the questions with a misunderstanding of any rule. I may not always have the perfect notation for every rule, but my notations will always be correct, and I will always know what they mean, even if I have to literally write the rules out in words in order for this to be. Holding myself to an extremely high level of accountability on those two elements really frees me up to think about games on a higher level.

Sometimes Great

And that allows me to sometimes be great. I can put myself in a position to do this by...

...thinking about how the rules relate to one another. A great understanding of this will influence how I notate the rules (and thus how easily I am able to bring them together for the solving of questions), and it will help me in my decisions about which rules are most important. It will also, of course, help me see more easily the inferences that will ultimately lead to right and wrong answers.

...recognizing occasions when splintering can be effective. I'd say, roughly, about one game per every 2 games sections will benefit from us drawing two or three diagrams instead of one. We discussed the most common of these situations in the *Or* Lesson. Most "splinter-able" situations that we see need not be splintered, but there are a few games where *not* creating multiple diagrams can lead to excruciating problem-solving, and a few games where creative splintering can drastically reduce the amount of time it takes to solve questions.

...seeing *why they are asking me a question.* I'm sure you've experienced this before—you're playing a game, you read a condition or something else in the question stem, and a key inference immediately comes to you. You're certain it's the right answer and you look and it's right there. You've solved a question in less than twenty seconds, and you can move on.

Of course this won't happen every question, but if you can get it to happen on just a few, it will give you the time you need for the questions that require more work.

Good and Great Solutions, then Drill

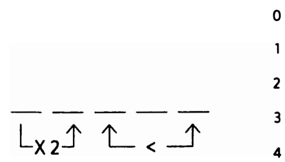
On the following pages are solutions for all of the games from the June '07 LSAT. For three of the four games, both a good and a great solution have been given. Carefully evaluate these solutions and pay particular attention to the consequences that the different setups have when it comes time to answer questions.

After reading the solutions, you will get a chance to play the games yourself. Certainly—right after you've studied the solutions—it won't feel like a real exam, but you should find that as long as you didn't memorize answer choices, it will still be a challenge. Drilling games in this way—by seeing the solutions first—presents a unique learning experience. You'll know exactly what the games are about, and from seeing the good and great solutions, you'll probably know exactly how *you* want to solve all four games. Thus, this exercise is primarily about execution—if you know what to expect, and you know what you want to do, how effective are you at actually getting it done?

THE GOOD SOLUTION

A company employee generates a series of five-digit product codes in accordance with the following rules:

The codes use the digits 0, 1, 2, 3, and 4, and no others.
Each digit occurs exactly once in any code.
The second digit has a value exactly twice that of the first digit.
The value of the third digit is less than the value of the fifth digit.



There are actually only two noteworthy rules here—the third and fourth. They are a bit tricky to notate, so I double-check that I understand my notations correctly before going into the questions...

1. If the last digit of an acceptable product code is 1, it must be true that the
(A) first digit is 2
(B) second digit is 0
(C) third digit is 3
(D) fourth digit is 4
(E) fourth digit is 0

2 4 0 3 1

If last digit is 1, third must be 0, 1st and 2nd must be 2 and 4, and that leaves 3 for the fourth spot.

2. Which one of the following must be true about any acceptable product code?
(A) The digit 1 appears in some position before the digit 2.
(B) The digit 1 appears in some position before the digit 3.
(C) The digit 2 appears in some position before the digit 3.
(D) The digit 3 appears in some position before the digit 0.
(E) The digit 4 appears in some position before the digit 3.

Can't easily see right answer. Used work from 1 to eliminate (A), (B), and (D). Stuck for a while between (C) and (E) before seeing that first two elements must be 1 & 2 or 2 & 4—either way 2 has to be in there, and so must come before 3.

3. If the third digit of an acceptable product code is not 0, which one of the following must be true?
(A) The second digit of the product code is 2.
(B) The third digit of the product code is 3.
(C) The fourth digit of the product code is 0.
(D) The fifth digit of the product code is 3.
(E) The fifth digit of the product code is 1.

Remembered from previous question that 0 can't go in first two spots. Know it can't go fifth. If it doesn't go third, it must go fourth. Can't figure out much else, but fortunately I don't have to.

_ _ _ 0 _

4. Any of the following pairs could be the third and fourth digits, respectively, of an acceptable product code, EXCEPT:
(A) 0, 1
(B) 0, 3
(C) 1, 0
(D) 3, 0
(E) 3, 4

Didn't even know what to think about (A) - (D), and was nervous I'd have to run hypos to test answers, but fortunately (E) is an obvious MBF. If (E) were true, the fifth number couldn't be higher than the third.

5. Which one of the following must be true about any acceptable product code?
(A) There is exactly one digit between the digit 0 and the digit 1.
(B) There is exactly one digit between the digit 1 and the digit 2.
(C) There are at most two digits between the digit 1 and the digit 3.
(D) There are at most two digits between the digit 2 and the digit 3.
(E) There are at most two digits between the digit 2 and the digit 4.

1 2 _ _ 3
2 4 _ _ 3
2 _ _ _ 4

Fumbled a bit before I figured out the issue. Knew (A) and (B) didn't have to be true from previous questions. Needed to test out (C), (D), and (E) to see if there was some reason one couldn't work. When I got to (E), I could see easily why it wasn't possible to have more than three digits between 2 and 4.

THE GREAT SOLUTION

A company employee generates a series of five-digit product codes in accordance with the following rules:

The codes use the digits 0, 1, 2, 3, and 4, and no others.
Each digit occurs exactly once in any code.
The second digit has a value exactly twice that of the first digit.
The value of the third digit is less than the value of the fifth digit.

1 2 __ __ __ 0, 3, 4

2 4 __ __ __ 0, 1, 3

<

In the first read-through, I notice that there are only two ways to satisfy the third rule, and use it to set up two diagrams. Then I write in the rest of the rules and elements to be placed. There are just a few ways that the three remaining elements can fit into the three spots, so I feel really in control of this game going into the questions.

1. If the last digit of an acceptable product code is 1, it must be true that the
(A) first digit is 2
(B) second digit is 0
(C) third digit is 3
(D) fourth digit is 4
(E) fourth digit is 0

If the condition is true, we're dealing with the second situation. Bam.

2. Which one of the following must be true about any acceptable product code?
(A) The digit 1 appears in some position before the digit 2.
(B) The digit 1 appears in some position before the digit 3.
(C) The digit 2 appears in some position before the digit 3.
(D) The digit 3 appears in some position before the digit 0.
(E) The digit 4 appears in some position before the digit 3.

Easy to see (C) must be true. Bam.

3. If the third digit of an acceptable product code is not 0, which one of the following must be true?
(A) The second digit of the product code is 2.
(B) The third digit of the product code is 3.
(C) The fourth digit of the product code is 0.
(D) The fifth digit of the product code is 3.
(E) The fifth digit of the product code is 1.

For both situations, I can see that if O is not third, it must be fourth.

4. Any of the following pairs could be the third and fourth digits, respectively, of an acceptable product code, EXCEPT:
(A) 0, 1
(B) 0, 3
(C) 1, 0
(D) 3, 0
(E) 3, 4

(A) through (D) all seemed like possibilities per one situation or the other. Clear to see (E) can't work in either.

5. Which one of the following must be true about any acceptable product code?
(A) There is exactly one digit between the digit 0 and the digit 1.
(B) There is exactly one digit between the digit 1 and the digit 2.
(C) There are at most two digits between the digit 1 and the digit 3.
(D) There are at most two digits between the digit 2 and the digit 3.
(E) There are at most two digits between the digit 2 and the digit 4.

Fairly easy to see (A) - (D) don't have to be true using the two diagrams; there is no way for there to be three spaces between 2 and 4 in either diagram, so (E) must be true.

THE GOOD SOLUTION

Exactly three films—Greed, Harvest, and Limelight—are shown during a film club's festival held on Thursday, Friday, and Saturday. Each film is shown at least once during the festival but never more than once on a given day. On each day at least one film is shown. Films are shown one at a time. The following conditions apply:

On Thursday Harvest is shown, and no film is shown after it on that day.
On Friday either Greed or Limelight, but not both, is shown, and no film is shown after it on that day.
On Saturday either Greed or Harvest, but not both, is shown, and no film is shown after it on that day.

		G/L out ↓	G/H out ↓	
1	__	__	__	G
2	__	__	__	H
3	__	/	/	L
	T	F	S	
	H last	G/L last	G/H last	

I know I didn't nail this one, but at least I got all of the information in. Thought of earliest film as "1" and so on. The rules seem simple enough, but without knowing how many films are shown each day, it's tough to know if "H" last means it's the first film shown, the second one, or the third. Same with G/L and G/H. One inference is that neither Friday nor Saturday will show all three films, so we can cross those spots out.

6. Which one of the following could be a complete and accurate description of the order in which the films are shown at the festival?

(~~A~~) Thursday: Limelight, then Harvest; Friday: Limelight; Saturday: Harvest
(~~B~~) Thursday: Harvest; Friday: Greed, then Limelight; Saturday: Limelight, then Greed
(C) Thursday: Harvest; Friday: Limelight; Saturday: Limelight, then Greed
(~~D~~) Thursday: Greed, then Harvest, then Limelight; Friday: Limelight; Saturday: Greed
(~~E~~) Thursday: Greed, then Harvest; Friday: Limelight, then Harvest; Saturday: Harvest

Used rules to eliminate answers. (A) was a bit tricky to eliminate—had to go back to scenario to see what was wrong-Greed not listed.

7. Which one of the following CANNOT be true?
(A) Harvest is the last film shown on each day of the festival.
(B) Limelight is shown on each day of the festival.
(C) Greed is shown second on each day of the festival.
(D) A different film is shown first on each day of the festival.
(E) A different film is shown last on each day of the festival.

Easy to see (A) can't be true and can move on quickly.

Exactly three films—Greed, Harvest, and Limelight—are shown during a film club's festival held on Thursday, Friday, and Saturday. Each film is shown at least once during the festival but never more than once on a given day. On each day at least one film is shown. Films are shown one at a time. The following conditions apply:

On Thursday Harvest is shown, and no film is shown after it on that day.
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On Saturday either Greed or Harvest, but not both, is shown, and no film is shown after it on that day.

		G/L out ↓	G/H out ↓	
1	___	___	___	G
2	___	___	___	H
3	___	/	/	L
	T	F	S	
	H last	G/L last	G/H last	

8. If Limelight is never shown again during the festival once Greed is shown, then which one of the following is the maximum number of film showings that could occur during the festival?
(A) three
(B) four
(C) five
(D) six
(E) seven

	T	F	S
1	L	H	L
2	H	L	G
3	___	/	/

Had to create hypo to see how many I could fit it. Tried to place G as late as possible to fit in a lot of Ls. Was also going to try placing G early, but didn't have to after seeing I could get six in. Knew I couldn't get seven in, because that would mean all three elements go in Thursday.

9. If Greed is shown exactly three times, Harvest is shown exactly twice, and Limelight is shown exactly once, then which one of the following must be true?
(A) All three films are shown on Thursday.
(B) Exactly two films are shown on Saturday.
(C) Limelight and Harvest are both shown on Thursday.
(D) Greed is the only film shown on Saturday.
(E) Harvest and Greed are both shown on Friday.

T	F	S
___	H	___
G	G	G
H	/	/

I could see that the order of films wasn't important to the question or answers, so I just focused on which elements could go on which days. Kept in my head that L could go on T or S, but not both.

10. If Limelight is shown exactly three times, Harvest is shown exactly twice, and Greed is shown exactly once, then which one of the following is a complete and accurate list of the films that could be the first film shown on Thursday?
(A) Harvest
(B) Limelight
(C) Greed, Harvest
(D) Greed, Limelight
(E) Greed, Harvest, Limelight

T	F	S
___	___	___
L	L	L
H	/	/
	~~G~~	

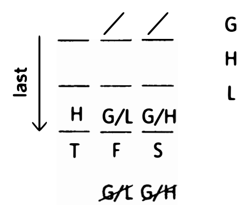
Similar process as last time. Kept in my head that the other H can go on F or S, and the G can go on T or S. So, L, H, and G can all go on Thursday. Now had to remember that H has to go last. So, L or G could go first.

THE GREAT SOLUTION

Exactly three films—Greed, Harvest, and Limelight—are shown during a film club's festival held on Thursday, Friday, and Saturday. Each film is shown at least once during the festival but never more than once on a given day. On each day at least one film is shown. Films are shown one at a time. The following conditions apply:

On Thursday Harvest is shown, and no film is shown after it on that day.
On Friday either Greed or Limelight, but not both, is shown, and no film is shown after it on that day.
On Saturday either Greed or Harvest, but not both, is shown, and no film is shown after it on that day.

Since I don't know how many are going to go on each day, I'm just to put my last elements into the last spots of each row. I'll also take off one row for F and S.



6. Which one of the following could be a complete and accurate description of the order in which the films are shown at the festival?
(A) Thursday: Limelight, then Harvest; Friday: Limelight; Saturday: Harvest
(B) Thursday: Harvest; Friday: Greed, then Limelight; Saturday: Limelight, then Greed
(C) Thursday: Harvest; Friday: Limelight; Saturday: Limelight, then Greed
(D) Thursday: Greed, then Harvest, then Limelight; Friday: Limelight; Saturday: Greed
(E) Thursday: Greed, then Harvest; Friday: Limelight, then Harvest; Saturday: Harvest

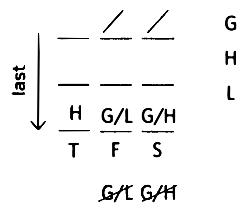
Same process as previous solution.

7. Which one of the following CANNOT be true?
(A) Harvest is the last film shown on each day of the festival.
(B) Limelight is shown on each day of the festival.
(C) Greed is shown second on each day of the festival.
(D) A different film is shown first on each day of the festival.
(E) A different film is shown last on each day of the festival.

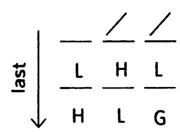
Easy to see (A) can't be true and can move on quickly.

Exactly three films—Greed, Harvest, and Limelight—are shown during a film club's festival held on Thursday, Friday, and Saturday. Each film is shown at least once during the festival but never more than once on a given day. On each day at least one film is shown. Films are shown one at a time. The following conditions apply:

On Thursday Harvest is shown, and no film is shown after it on that day.
On Friday either Greed or Limelight, but not both, is shown, and no film is shown after it on that day.
On Saturday either Greed or Harvest, but not both, is shown, and no film is shown after it on that day.

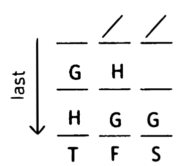


8. If Limelight is never shown again during the festival once Greed is shown, then which one of the following is the maximum number of film showings that could occur during the festival?
(A) three
(B) four
(C) five
(D) six
(E) seven



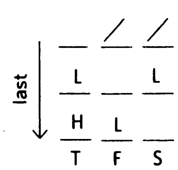
Same as previous solution. Cleaner diagram makes the work a bit easier.

9. If Greed is shown exactly three times, Harvest is shown exactly twice, and Limelight is shown exactly once, then which one of the following must be true?
(A) All three films are shown on Thursday.
(B) Exactly two films are shown on Saturday.
(C) Limelight and Harvest are both shown on Thursday.
(D) Greed is the only film shown on Saturday.
(E) Harvest and Greed are both shown on Friday.



Similar to previous solution. Cleaner diagram makes the work easier.

10. If Limelight is shown exactly three times, Harvest is shown exactly twice, and Greed is shown exactly once, then which one of the following is a complete and accurate list of the films that could be the first film shown on Thursday?
(A) Harvest
(B) Limelight
(C) Greed, Harvest
(D) Greed, Limelight
(E) Greed, Harvest, Limelight



Similar to previous solution. Cleaner diagram makes the work easier.

JUST THE GOOD SOLUTION

A cruise line is scheduling seven week-long voyages for the ship Freedom. Each voyage will occur in exactly one of the first seven weeks of the season: weeks 1 through 7. Each voyage will be to exactly one of four destinations: Guadeloupe, Jamaica, Martinique, or Trinidad. Each destination will be scheduled for at least one of the weeks. The following conditions apply to Freedom's schedule:

Jamaica will not be its destination in week 4.
Trinidad will be its destination in week 7.
Freedom will make exactly two voyages to Martinique, and at least one voyage to Guadeloupe will occur in some week between those two voyages.
Guadeloupe will be its destination in the week preceding any voyage it makes to Jamaica.
No destination will be scheduled for consecutive weeks.

G, J, M, T   ~~XX~~

_ _ _ _ _ _ T

(J not in 4 and not in 6)

M – G – M   J → GJ

There is no good and great for this game because there is little mystery as to how to set it up or think about it.

It's plenty tough though—perhaps the toughest game in the set. What it requires from us is spot-on execution. The third and fourth rules (particularly the fourth) are ripe for misreading or mis-notating, and many of the wrong answers are designed to trap those who don't use those rules correctly. The questions are much like the setup—they don't require cleverness, but they do require a lot of correct execution.

11. Which one of the following is an acceptable schedule of destinations for Freedom, in order from week 1 through week 7?
(A) Guadeloupe, Jamaica, Martinique, Trinidad, Guadeloupe, Martinique, Trinidad
(B) Guadeloupe, Martinique, Trinidad, Martinique, Guadeloupe, Jamaica, Trinidad
(C) Jamaica, Martinique, Guadeloupe, Martinique, Guadeloupe, Jamaica, Trinidad
(D) Martinique, Trinidad, Guadeloupe, Jamaica, Martinique, Guadeloupe, Trinidad
(E) Martinique, Trinidad, Guadeloupe, Trinidad, Guadeloupe, Jamaica, Martinique

Used rules to eliminate answers.

12. Which one of the following CANNOT be true about Freedom's schedule of voyages?
(A) Freedom makes a voyage to Trinidad in week 6.
(B) Freedom makes a voyage to Martinique in week 5.
(C) Freedom makes a voyage to Jamaica in week 6.
(D) Freedom makes a voyage to Jamaica in week 3.
(E) Freedom makes a voyage to Guadeloupe in week 3.

Made inference up-front.

13. If Freedom makes a voyage to Trinidad in week 5, which one of the following could be true?
(A) Freedom makes a voyage to Trinidad in week 1.
(B) Freedom makes a voyage to Martinique in week 2.
(C) Freedom makes a voyage to Guadeloupe in week 3.
(D) Freedom makes a voyage to Martinique in week 4.
(E) Freedom makes a voyage to Jamaica in week 6.

M G J _ T _ T

G J M G T M T

If Freedom makes a trip to T in week 5, there are only two options for where J can go (since it can't go in four and since it must be preceded by G). Once we've drawn two boards, one with G, J in 2,3 and the other with G, J in 1,2, we can use the M-G-M rule to determine that in the first situation, M must go in 1 and either 4 or 6, and in the second, the only place for M-G-M to go would be 3,4, and 6. We can use these results to confirm that all answers other than (D) must be false.

14. If Freedom makes a voyage to Guadeloupe in week 1 and a voyage to Jamaica in week 5, which one of the following must be true?
(A) Freedom makes a voyage to Jamaica in week 2.
(B) Freedom makes a voyage to Trinidad in week 2.
(C) Freedom makes a voyage to Martinique in week 3.
(D) Freedom makes a voyage to Guadeloupe in week 6.
(E) Freedom makes a voyage to Martinique in week 6.

G _ _ G J M T

Once I place G and J in, I knew M has to go in 6 to fit the M-G-M set in.

A cruise line is scheduling seven week-long voyages for the ship Freedom. Each voyage will occur in exactly one of the first seven weeks of the season: weeks 1 through 7. Each voyage will be to exactly one of four destinations: Guadeloupe, Jamaica, Martinique, or Trinidad. Each destination will be scheduled for at least one of the weeks. The following conditions apply to Freedom's schedule:

Jamaica will not be its destination in week 4.
Trinidad will be its destination in week 7.
Freedom will make exactly two voyages to Martinique, and at least one voyage to Guadeloupe will occur in some week between those two voyages.
Guadeloupe will be its destination in the week preceding any voyage it makes to Jamaica.
No destination will be scheduled for consecutive weeks.

G, J, M, T   ~~XX~~

_ _ _ _ _ _ T
(~~J~~ under week 4, ~~T~~ under week 6)

M — G — M   J → GJ

15. If Freedom makes a voyage to Guadeloupe in week 1 and to Trinidad in week 2, which one of the following must be true?
(A) Freedom makes a voyage to Martinique in week 3.
(B) Freedom makes a voyage to Martinique in week 4.
(C) Freedom makes a voyage to Martinique in week 5.
(D) Freedom makes a voyage to Guadeloupe in week 3.
(E) Freedom makes a voyage to Guadeloupe in week 5.

G T M G J M T

We've got to get the M-G-M group and GJ in, and there is only one way to do that.

16. If Freedom makes a voyage to Martinique in week 3, which one of the following could be an accurate list of Freedom's destinations in week 4 and week 5, respectively?
(A) Guadeloupe, Trinidad
(B) Jamaica, Guadeloupe
(C) Martinique, Trinidad
(D) Trinidad, Jamaica
(E) Trinidad, Martinique

M G M GJ _ T

_ _ M G-M _ T

I didn't know how to go about solving this problem based on just putting M down in 3, or just adding that to the pile of information, so I decided to play out the different ways in which M could be third, relative to the M-G-M grouping we know of. I was disappointed I couldn't make more inferences, but the diagrams gave me all I needed to eliminate the wrong choices.

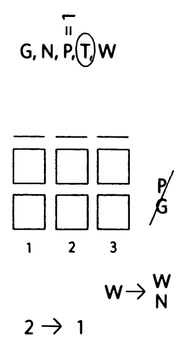
17. Which one of the following must be true about Freedom's schedule of voyages?
(A) Freedom makes a voyage to Guadeloupe either in week 1 or else in week 2.
(B) Freedom makes a voyage to Martinique either in week 2 or else in week 3.
(C) Freedom makes at most two voyages to Guadeloupe.
(D) Freedom makes at most two voyages to Jamaica.
(E) Freedom makes at most two voyages to Trinidad.

I was worried I'd have to draw things out for this one too, but once I got to (D) I knew it was correct. If I had 3 Js I'd need 3 Gs, and there isn't enough space for that.

THE GOOD SOLUTION

There are exactly three recycling centers in Rivertown: Center 1, Center 2, and Center 3. Exactly five kinds of material are recycled at these recycling centers: glass, newsprint, plastic, tin, and wood. Each recycling center recycles at least two but no more than three of these kinds of material. The following conditions must hold:

Any recycling center that recycles wood also recycles newsprint.
Every kind of material that Center 2 recycles is also recycled at Center 1.
Only one of the recycling centers recycles plastic, and that recycling center does not recycle glass.

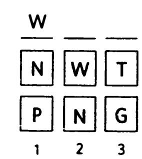


This is a fairly straightforward scenario, but the rules are a bit challenging to notate. In any case, I'm able to get the rules down, and I understand the meaning of my notations. I have a feeling this game is going to be challenging because I haven't been able to make any inferences, and because the rules are all of a different type—that means I have to go through a variety of thought processes as I solve questions.

18. Which one of the following could be an accurate account of all the kinds of material recycled at each recycling center in Rivertown?
(~~A~~) Center 1: newsprint, plastic, wood; Center 2: newsprint, wood; Center 3: glass, tin, wood
(B) Center 1: glass, newsprint, tin; Center 2: glass, newsprint, tin; Center 3: newsprint, plastic, wood
(~~C~~) Center 1: glass, newsprint, wood; Center 2: glass, newsprint, tin; Center 3: plastic, tin
(~~D~~) Center 1: glass, plastic, tin; Center 2: glass, tin; Center 3: newsprint, wood
(~~E~~) Center 1: newsprint, plastic, wood; Center 2: newsprint, plastic, wood; Center 3: glass, newsprint, tin

Used rules to eliminate answers. Since there are just three rules here, expect one of them to eliminate two answers, and the third rule does that.

19. Which one of the following is a complete and accurate list of the recycling centers in Rivertown any one of which could recycle plastic?
(A) Center 1 only
(B) Center 3 only
(C) Center 1, Center 2
(D) Center 1, Center 3
(E) Center 1, Center 2, Center 3



I know that Center 2 can't recycle P, otherwise two centers would have to. That leaves Centers 1 and 3 as options. I know 3 can work per the Rules question. It seems 1 can work, but I want to make sure there isn't some strange reason it can't. I come up with one hypothetical arrangement to make sure it works, and select (D).

20. If Center 2 recycles three kinds of material, then which one of the following kinds of material must Center 3 recycle?
(A) glass
(B) newsprint
(C) plastic
(D) tin
(E) wood

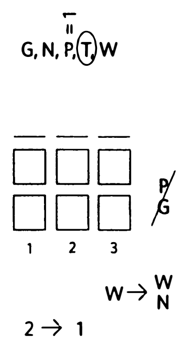
The consequence of Center 2 recycling three types of material is that Center 1 must recycle the same three types of material. That means that P, which can only be recycled in one center, must be recycled in Center 3. That's all I can figure out, and fortunately that's the correct answer, (C).

21. If each recycling center in Rivertown recycles exactly three kinds of material, then which one of the following could be true?
(~~A~~) Only Center 2 recycles glass.
(~~B~~) Only Center 3 recycles newsprint.
(~~C~~) Only Center 1 recycles plastic.
(D) Only Center 3 recycles tin.
(~~E~~) Only Center 1 recycles wood.

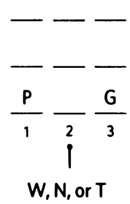
Per the last question, I've already been thinking about this, and I know that two consequences would be that Centers 1 & 2 recycle the same three materials, and that P is recycled in 3. That allows me to get rid of (A), (C), and (E). Looking at (B), if (B) is true, that means that only Center 3 recycles wood. That leaves glass, tin, and plastic as the three elements that must be recycled by 1 & 2, but plastic can't be recycled by both. Thus, (B) can't be true. (D) is the correct answer.

There are exactly three recycling centers in Rivertown: Center 1, Center 2, and Center 3. Exactly five kinds of material are recycled at these recycling centers: glass, newsprint, plastic, tin, and wood. Each recycling center recycles at least two but no more than three of these kinds of material. The following conditions must hold:

Any recycling center that recycles wood also recycles newsprint.
Every kind of material that Center 2 recycles is also recycled at Center 1.
Only one of the recycling centers recycles plastic, and that recycling center does not recycle glass.

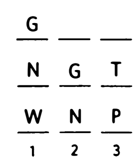


22. If Center 3 recycles glass, then which one of the following kinds of material must Center 2 recycle?
(A) glass
(B) newsprint
(C) plastic
(D) tin
(E) wood



If G goes in 3, that means P must go in 1. That leaves W, N, and T as the three possibilities for Center 2. Does W have to be there? No, 2 could just recycle N and T. Does T have to be there? No, it can just recycle W and N. Does N have to be there? Yes it does, because you can't just have W and T (because of the W → W,N rule). (B) is correct.

23. If Center 1 is the only recycling center that recycles wood, then which one of the following could be a complete and accurate list of the kinds of material that one of the recycling centers recycles?
(A) plastic, tin
(B) newsprint, wood
(C) newsprint, tin
(D) glass, wood
(E) glass, tin

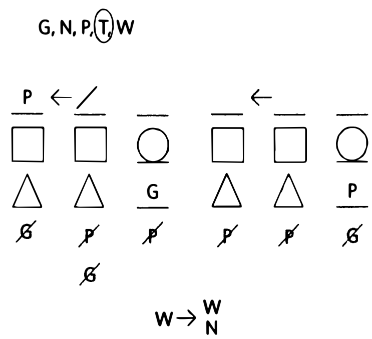


What a strange question. Anyway, I put W into 1, and that means N must also be in 1. That means N must also be in 2. I get stuck at this point, and look to my rules. I realize that P must now go in 3, and since G can't go with P, G must go elsewhere, and so it must go in 1 & 2. I know I still have T to place, and realize it can only go in 3. All that allows me to eliminate (B) through (E), and it's easy for me to see how (A) can work.

THE GREAT SOLUTION

There are exactly three recycling centers in Rivertown: Center 1, Center 2, and Center 3. Exactly five kinds of material are recycled at these recycling centers: glass, newsprint, plastic, tin, and wood. Each recycling center recycles at least two but no more than three of these kinds of material. The following conditions must hold:

Any recycling center that recycles wood also recycles newsprint.
Every kind of material that Center 2 recycles is also recycled at Center 1.
Only one of the recycling centers recycles plastic, and that recycling center does not recycle glass.



Here I use different shapes to get a clear visual representation of the second rule. (I keep in mind that the circles in Center 3 simply mean that space has to be filled.) Also, I am able to infer that P can't go in 2, and I use the final rule to branch off into two diagrams. One reason I chose to do this is because when P is in Center 1, I know that everything else about Centers 1 & 2 must match. Creating two diagrams also helps me note the part about glass in the last rule in a more visual way.

18. Which one of the following could be an accurate account of all the kinds of material recycled at each recycling center in Rivertown?
(~~A~~) Center 1: newsprint, plastic, wood; Center 2: newsprint, wood; Center 3: glass, tin, wood
(B) Center 1: glass, newsprint, tin; Center 2: glass, newsprint, tin; Center 3: newsprint, plastic, wood
(~~C~~) Center 1: glass, newsprint, wood; Center 2: glass, newsprint, tin; Center 3: plastic, tin
(~~D~~) Center 1: glass, plastic, tin; Center 2: glass, tin; Center 3: newsprint, wood
(~~E~~) Center 1: newsprint, plastic, wood; Center 2: newsprint, plastic, wood; Center 3: glass, newsprint, tin

Used rules to eliminate answers. Since there are just three rules here, I expected one of them to eliminate two answers, and the third rule does that.

19. Which one of the following is a complete and accurate list of the recycling centers in Rivertown any one of which could recycle plastic?
(A) Center 1 only
(B) Center 3 only
(C) Center 1, Center 2
(D) Center 1, Center 3
(~~E~~) Center 1, Center 2, Center 3

I've made this inference up front. I also know P can go into Center 3 from the previous question. If I need to, I can come up with a hypothetical to check that P can go in Center 1. I can just stick W and N into 1 & 2, and put G and T into 3. I'm comfortable enough with my diagram that I can do this mentally without redrawing.

20. If Center 2 recycles three kinds of material, then which one of the following kinds of material must Center 3 recycle?
(A) glass
(B) newsprint
(C) plastic
(D) tin
(E) wood

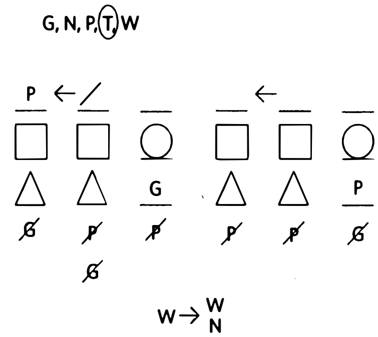
Per the condition, we know we're dealing with the second of our diagrams, and we can pick (C) easily.

21. If each recycling center in Rivertown recycles exactly three kinds of material, then which one of the following could be true?
(~~A~~) Only Center 2 recycles glass.
(~~B~~) Only Center 3 recycles newsprint.
(~~C~~) Only Center 1 recycles plastic.
(D) Only Center 3 recycles tin.
(~~E~~) Only Center 1 recycles wood.

We know we are dealing with the second diagram, and can eliminate (A), (C), and (E) easily. If 3 is the only center that recycles N, it means it's also the only center that recycles W. That takes N, W, and P away as options for filling the three spaces each for centers 1 and 2, leaving only G and T. Since G and T can't fill all those spaces, (B) is not possible. (D) is correct.

There are exactly three recycling centers in Rivertown: Center 1, Center 2, and Center 3. Exactly five kinds of material are recycled at these recycling centers: glass, newsprint, plastic, tin, and wood. Each recycling center recycles at least two but no more than three of these kinds of material. The following conditions must hold:

Any recycling center that recycles wood also recycles newsprint.
Every kind of material that Center 2 recycles is also recycled at Center 1.
Only one of the recycling centers recycles plastic, and that recycling center does not recycle glass.



22. If Center 3 recycles glass, then which one of the following kinds of material must Center 2 recycle?
(A) glass
(B) newsprint
(C) plastic
(D) tin
(E) wood

If 3 recycles glass, we know we're dealing with the first of our diagrams. We know that Center 2 can't recycle P and G. That leaves W, N, and T as options, and we know at least 2 of the three must be selected. Leaving W out puts N and T in, which is fine; leaving T out puts W and N in, which is fine; but putting N out leaves W and T, which is not fine. N must be in Center 2 and (B) is correct.

23. If Center 1 is the only recycling center that recycles wood, then which one of the following could be a complete and accurate list of the kinds of material that one of the recycling centers recycles?
(A) plastic, tin
~~(B)~~ newsprint, wood
~~(C)~~ newsprint, tin
~~(D)~~ glass, wood
~~(E)~~ glass, tin

W	/	
G	G	T
N	N	P
1	2	3

We know this is only possible in the second diagram. We put W into Center 1. That means N is in Center 1, which means N is also in Center 2. Center 2 can only have 2 elements, because it has to match the remaining two spots for Center 1. G has to go somewhere, and it can't go in 3, so it must go in 1 & 2. That means T has to go in 3. We can eliminate (B) - (E), and (A) is correct.

Directions for opposite page: Here's a chance for you to play the very same games we've been reviewing. Since you've just seen the games, it certainly won't feel like a real exam. It should still be a challenge. See if you can always be good and sometimes great, mark your setup and problem-solving times, and see if you can be as fast (or faster) than me without sacrificing control and accuracy.

GAME 1

A company employee generates a series of five-digit product codes in accordance with the following rules:

The codes use the digits 0, 1, 2, 3, and 4, and no others.
Each digit occurs exactly once in any code.
The second digit has a value exactly twice that of the first digit.
The value of the third digit is less than the value of the fifth digit.

1. If the last digit of an acceptable product code is 1, it must be true that the
(A) first digit is 2
(B) second digit is 0
(C) third digit is 3
(D) fourth digit is 4
(E) fourth digit is 0

2. Which one of the following must be true about any acceptable product code?
(A) The digit 1 appears in some position before the digit 2.
(B) The digit 1 appears in some position before the digit 3.
(C) The digit 2 appears in some position before the digit 3.
(D) The digit 3 appears in some position before the digit 0.
(E) The digit 4 appears in some position before the digit 3.

3. If the third digit of an acceptable product code is not 0, which one of the following must be true?
(A) The second digit of the product code is 2.
(B) The third digit of the product code is 3.
(C) The fourth digit of the product code is 0.
(D) The fifth digit of the product code is 3.
(E) The fifth digit of the product code is 1.

4. Any of the following pairs could be the third and fourth digits, respectively, of an acceptable product code, EXCEPT:
(A) 0, 1
(B) 0, 3
(C) 1, 0
(D) 3, 0
(E) 3, 4

5. Which one of the following must be true about any acceptable product code?
(A) There is exactly one digit between the digit 0 and the digit 1.
(B) There is exactly one digit between the digit 1 and the digit 2.
(C) There are at most two digits between the digit 1 and the digit 3.
(D) There are at most two digits between the digit 2 and the digit 3.
(E) There are at most two digits between the digit 2 and the digit 4.

GAME 2

Exactly three films—Greed, Harvest, and Limelight—are shown during a film club's festival held on Thursday, Friday, and Saturday. Each film is shown at least once during the festival but never more than once on a given day. On each day at least one film is shown. Films are shown one at a time. The following conditions apply:

On Thursday Harvest is shown, and no film is shown after it on that day.
On Friday either Greed or Limelight, but not both, is shown, and no film is shown after it on that day.
On Saturday either Greed or Harvest, but not both, is shown, and no film is shown after it on that day.

6. Which one of the following could be a complete and accurate description of the order in which the films are shown at the festival?
(A) Thursday: Limelight, then Harvest; Friday: Limelight; Saturday: Harvest
(B) Thursday: Harvest; Friday: Greed, then Limelight; Saturday: Limelight, then Greed
(C) Thursday: Harvest; Friday: Limelight; Saturday: Limelight, then Greed
(D) Thursday: Greed, then Harvest, then Limelight; Friday: Limelight; Saturday: Greed
(E) Thursday: Greed, then Harvest; Friday:
Limelight, then Harvest; Saturday: Harvest

7. Which one of the following CANNOT be true?
(A) Harvest is the last film shown on each day of the festival.
(B) Limelight is shown on each day of the festival.
(C) Greed is shown second on each day of the festival.
(D) A different film is shown first on each day of the festival.
(E) A different film is shown last on each day of the festival.

8. If Limelight is never shown again during the festival once Greed is shown, then which one of the following is the maximum number of film showings that could occur during the festival?
(A) three
(B) four
(C) five
(D) six
(E) seven

9. If Greed is shown exactly three times, Harvest is shown exactly twice, and Limelight is shown exactly once, then which one of the following must be true?
(A) All three films are shown on Thursday.
(B) Exactly two films are shown on Saturday.
(C) Limelight and Harvest are both shown on Thursday.
(D) Greed is the only film shown on Saturday.
(E) Harvest and Greed are both shown on Friday.

10. If Limelight is shown exactly three times, Harvest is shown exactly twice, and Greed is shown exactly once, then which one of the following is a complete and accurate list of the films that could be the first film shown on Thursday?
(A) Harvest
(B) Limelight
(C) Greed, Harvest
(D) Greed, Limelight
(E) Greed, Harvest, Limelight

GAME 3

A cruise line is scheduling seven week-long voyages for the ship Freedom. Each voyage will occur in exactly one of the first seven weeks of the season: weeks 1 through 7. Each voyage will be to exactly one of four destinations: Guadeloupe, Jamaica, Martinique, or Trinidad. Each destination will be scheduled for at least one of the weeks. The following conditions apply to Freedom's schedule:

Jamaica will not be its destination in week 4.
Trinidad will be its destination in week 7.
Freedom will make exactly two voyages to Martinique, and at least one voyage to Guadeloupe will occur in some week between those two voyages.
Guadeloupe will be its destination in the week preceding any voyage it makes to Jamaica.
No destination will be scheduled for consecutive weeks.

11. Which one of the following is an acceptable schedule of destinations for Freedom, in order from week 1 through week 7?
(A) Guadeloupe, Jamaica, Martinique, Trinidad, Guadeloupe, Martinique, Trinidad
(B) Guadeloupe, Martinique, Trinidad, Martinique, Guadeloupe, Jamaica, Trinidad
(C) Jamaica, Martinique, Guadeloupe, Martinique, Guadeloupe, Jamaica, Trinidad
(D) Martinique, Trinidad, Guadeloupe, Jamaica, Martinique, Guadeloupe, Trinidad
(E) Martinique, Trinidad, Guadeloupe, Trinidad, Guadeloupe, Jamaica, Martinique

12. Which one of the following CANNOT be true about Freedom's schedule of voyages?
(A) Freedom makes a voyage to Trinidad in week 6.
(B) Freedom makes a voyage to Martinique in week 5.
(C) Freedom makes a voyage to Jamaica in week 6.
(D) Freedom makes a voyage to Jamaica in week 3.
(E) Freedom makes a voyage to Guadeloupe in week 3.

13. If Freedom makes a voyage to Trinidad in week 5, which one of the following could be true?
(A) Freedom makes a voyage to Trinidad in week 1.
(B) Freedom makes a voyage to Martinique in week 2.
(C) Freedom makes a voyage to Guadeloupe in week 3.
(D) Freedom makes a voyage to Martinique in week 4.
(E) Freedom makes a voyage to Jamaica in week 6.

14. If Freedom makes a voyage to Guadeloupe in week 1 and a voyage to Jamaica in week 5, which one of the following must be true?
(A) Freedom makes a voyage to Jamaica in week 2.
(B) Freedom makes a voyage to Trinidad in week 2.
(C) Freedom makes a voyage to Martinique in week 3.
(D) Freedom makes a voyage to Guadeloupe in week 6.
(E) Freedom makes a voyage to Martinique in week 6.

15. If Freedom makes a voyage to Guadeloupe in week 1 and to Trinidad in week 2, which one of the following must be true?
(A) Freedom makes a voyage to Martinique in week 3.
(B) Freedom makes a voyage to Martinique in week 4.
(C) Freedom makes a voyage to Martinique in week 5.
(D) Freedom makes a voyage to Guadeloupe in week 3.
(E) Freedom makes a voyage to Guadeloupe in week 5.

16. If Freedom makes a voyage to Martinique in week 3, which one of the following could be an accurate list of Freedom's destinations in week 4 and week 5, respectively?
(A) Guadeloupe, Trinidad
(B) Jamaica, Guadeloupe
(C) Martinique, Trinidad
(D) Trinidad, Jamaica
(E) Trinidad, Martinique

17. Which one of the following must be true about Freedom's schedule of voyages?
(A) Freedom makes a voyage to Guadeloupe either in week 1 or else in week 2.
(B) Freedom makes a voyage to Martinique either in week 2 or else in week 3.
(C) Freedom makes at most two voyages to Guadeloupe.
(D) Freedom makes at most two voyages to Jamaica.
(E) Freedom makes at most two voyages to Trinidad.

GAME 4

There are exactly three recycling centers in Rivertown: Center 1, Center 2, and Center 3. Exactly five kinds of material are recycled at these recycling centers: glass, newsprint, plastic, tin, and wood. Each recycling center recycles at least two but no more than three of these kinds of material. The following conditions must hold:

Any recycling center that recycles wood also recycles newsprint.
Every kind of material that Center 2 recycles is also recycled at Center 1.
Only one of the recycling centers recycles plastic, and that recycling center does not recycle glass.

18. Which one of the following could be an accurate account of all the kinds of material recycled at each recycling center in Rivertown?
(A) Center 1: newsprint, plastic, wood; Center 2: newsprint, wood; Center 3: glass, tin, wood
(B) Center 1: glass, newsprint, tin; Center 2: glass, newsprint, tin; Center 3: newsprint, plastic, wood
(C) Center 1: glass, newsprint, wood; Center 2: glass, newsprint, tin; Center 3: plastic, tin
(D) Center 1: glass, plastic, tin; Center 2: glass, tin; Center 3: newsprint, wood
(E) Center 1: newsprint, plastic, wood; Center 2: newsprint, plastic, wood; Center 3: glass, newsprint, tin

19. Which one of the following is a complete and accurate list of the recycling centers in Rivertown any one of which could recycle plastic?
(A) Center 1 only
(B) Center 3 only
(C) Center 1, Center 2
(D) Center 1, Center 3
(E) Center 1, Center 2, Center 3

20. If Center 2 recycles three kinds of material, then which one of the following kinds of material must Center 3 recycle?
(A) glass
(B) newsprint
(C) plastic
(D) tin
(E) wood

21. If each recycling center in Rivertown recycles exactly three kinds of material, then which one of the following could be true?
(A) Only Center 2 recycles glass.
(B) Only Center 3 recycles newsprint.
(C) Only Center 1 recycles plastic.
(D) Only Center 3 recycles tin.
(E) Only Center 1 recycles wood.

22. If Center 3 recycles glass, then which one of the following kinds of material must Center 2 recycle?
(A) glass
(B) newsprint
(C) plastic
(D) tin
(E) wood

23. If Center 1 is the only recycling center that recycles wood, then which one of the following could be a complete and accurate list of the kinds of material that one of the recycling centers recycles?
(A) plastic, tin
(B) newsprint, wood
(C) newsprint, tin
(D) glass, wood
(E) glass, tin

29 LOGIC GAMES the mastery challenge

I hope you had a good breakfast this morning.

For this lesson, I have handpicked four challenging games that have appeared on past LSATs. Each game was arguably the most difficult game that appeared in its section, and I know each game very well because these are all games students have asked me about over and over again. Each game is challenging in a different and unique way, and each game is presented with its full set of questions. Consider this an extreme assessment of where you are right now with your Logic Games skills.

If you didn't have that good breakfast, you may want to grab a cup of coffee.

In Lesson 3, we laid out a few different characteristics representative of Logic Games mastery. Here they are again:

1) An ability to comprehend and lay out a basic setup for any scenario
2) An ability to understand all rules in a specific and usable way
3) An ability to recognize the most significant aspects of a game
4) An ability to rarely make diagramming mistakes, and to recover when you do
5) An ability to intuitively use the correct strategy for answering questions
6) Confidence

We are going to use these characteristics as the benchmark against which you will assess your performance on these games.

Directions: Solve the next four games as you would if you saw them on the exam, except for two specific differences:

1) Do not think of these games, collectively, as a typical section. A section will have games that take less time, and games that take more, and all of these games are games that take longer than average. Give yourself an extra minute during the setup—it'll likely save you more than a minute in the questions. In addition, keep in mind that there are 26 questions here total, whereas on your exam you will almost certainly have 23 questions total. Work each game at the pace you would during the exam, and we'll discuss ways to assess the outcome afterwards.

2) Keep track of your timing at two points—after you have set up your diagram and after you have finished a game—and do not pause more than a few seconds to write your times. After each game, quickly fill out the assessment form before moving on to the next game. Do not check solutions in the middle of a game or between games.

Game 1 | PT 29, G2

Two mannequins—1 and 2—will be dressed for display in outfits chosen from ten articles of clothing. Each article is in exactly one of three colors: navy, red, or yellow. There are three hats—one in each color; three jackets—one in each color; three skirts—one in each color; and one red tie. Each mannequin wears exactly one of the hats, one of the jackets, and one of the skirts. Furthermore, their outfits must meet the following restrictions:

Neither mannequin wears all three colors.
Each mannequin wears a hat in a different color from the jacket it wears.
Mannequin 2 wears the navy skirt.
Mannequin 1 wears the tie.

Setup Time: ______

7. Which one of the following could be complete outfits for the two mannequins?
(A) mannequin 1: navy hat, red jacket, yellow skirt, red tie
mannequin 2: red hat, navy jacket, navy skirt
(B) mannequin 1: red hat, red jacket, yellow skirt, red tie
mannequin 2: yellow hat, navy jacket, navy skirt
(C) mannequin 1: red hat, yellow jacket, red skirt, red tie
mannequin 2: yellow hat, navy jacket, yellow skirt
(D) mannequin 1: yellow hat, red jacket, yellow skirt, red tie
mannequin 2: red hat, navy jacket, navy skirt
(E) mannequin 1: yellow hat, yellow jacket, red skirt
mannequin 2: red hat, navy jacket, navy skirt

8. Which one of the following could be true of the mannequins' outfits?
(A) Mannequin 1 wears the navy jacket and the yellow skirt.
(B) Mannequin 2 wears the red hat and the red jacket.
(C) Mannequin 1 wears exactly one red article of clothing.
(D) Mannequin 1 wears exactly three yellow articles of clothing.
(E) Mannequin 2 wears no red articles of clothing.

9. If mannequin 1 wears the navy jacket, which one of the following could be true?
(A) Mannequin 1 wears the yellow hat.
(B) Mannequin 1 wears the yellow skirt.
(C) Mannequin 2 wears the red hat.
(D) Mannequin 2 wears the yellow hat.
(E) Mannequin 2 wears the yellow jacket.

10. If all four of the red articles of clothing are included in the two mannequins' outfits, which one of the following must be true?
(A) Mannequin 1 wears the red hat.
(B) Mannequin 1 wears the yellow jacket.
(C) Mannequin 2 wears the navy jacket.
(D) Mannequin 1 wears no navy articles of clothing.
(E) Mannequin 2 wears no yellow articles of clothing.

11. If mannequin 2 wears the red jacket, then mannequin 1 must wear the
(A) navy hat
(B) red hat
(C) yellow hat
(D) red skirt
(E) yellow skirt

12. If all three of the yellow articles of clothing are included in the two mannequins' outfits, which one of the following could be true?
(A) Mannequin 1 wears the navy jacket.
(B) Mannequin 1 wears the yellow jacket.
(C) Mannequin 1 wears the red skirt.
(D) Mannequin 2 wears the red hat.
(E) Mannequin 2 wears the red jacket.

13. If mannequin 1 wears the skirt that is the same color as the jacket that mannequin 2 wears, which one of the following must be true?
(A) Mannequin 1 wears the yellow hat.
(B) Mannequin 1 wears the yellow jacket.
(C) Mannequin 2 wears the navy hat.
(D) Mannequin 2 wears the red hat.
(E) Mannequin 2 wears the red jacket.

Total Time: ______

Did you feel...	Y	-	N
You understood basic design and laid it out well			
You understood and notated all rules well			
You recognized the most significant aspects			
You didn't make a diagramming mistake			
You used correct question strategies			
You felt confident			

Game 2 | PT 31, G2

A music store carries ten types of CDs—both new and used of each of jazz, opera, pop, rap, and soul. The store is having a sale on some of these types of CDs. The following conditions must apply:
Used pop is on sale; new opera is not.
If both types of pop are on sale, then all soul is.
If both types of jazz are on sale, then no rap is.
If neither type of jazz is on sale, then new pop is.
If either type of rap is on sale, then no soul is.

Setup Time: ______

7. Which one of the following could be a complete and accurate list of the types of CDs that are on sale?
(A) new jazz, used jazz, used opera, used pop, new rap
(B) new jazz, used pop, used rap, new soul
(C) used opera, used pop, new rap, used rap
(D) used opera, new pop, used pop, new soul
(E) used jazz, used pop, new soul, used soul

8. If new soul is not on sale, then which one of the following must be true?
(A) New rap is not on sale.
(B) New rap is on sale.
(C) Used opera is not on sale.
(D) At least one type of jazz is not on sale.
(E) At least one type of pop is not on sale.

9. If both types of jazz are on sale, then which one of the following is the minimum number of types of new CDs that could be included in the sale?
(A) one
(B) two
(C) three
(D) four
(E) five

10. Which one of the following CANNOT be true?
(A) Neither type of opera and neither type of rap is on sale.
(B) Neither type of jazz and neither type of opera is on sale.
(C) Neither type of opera and neither type of soul is on sale.
(D) Neither type of jazz and neither type of soul is on sale.
(E) Neither type of jazz and neither type of rap is on sale.

11. If neither type of jazz is on sale, then each of the following must be true EXCEPT:
(A) Used opera is on sale.
(B) New rap is not on sale.
(C) Used rap is not on sale.
(D) New soul is on sale.
(E) Used soul is on sale.

12. If new soul is the only type of new CD on sale, then which one of the following CANNOT be true?
(A) Used jazz is not on sale.
(B) Use opera is not on sale.
(C) Used rap is not on sale.
(D) Used soul is on sale.
(E) Used soul is not on sale.

13. If exactly four of the five types of used CDs are the only CDs on sale, then which one of the following could be true?
(A) Used jazz is not on sale.
(B) Used opera is not on sale.
(C) Used rap is not on sale.
(D) Neither type of jazz is on sale.
(E) Neither type of rap and neither type of soul is on sale.

Total Time: ______

Did you feel...	Y	-	N
You understood basic design and laid it out well			
You understood and notated all rules well			
You recognized the most significant aspects			
You didn't make a diagramming mistake			
You used correct question strategies			
You felt confident			

Game 3 | PT 32, G3

At a concert, exactly eight compositions—F, H, L, O, P, R, S, and T—are to be performed exactly once each, consecutively and one composition at a time. The order of their performance must satisfy the following conditions:

T is performed either immediately before F or immediately after R.
At least two compositions are performed either after F and before R, or after R and before F.
O is performed either first of fifth.
The eighth composition performed is either L or H.
P is performed at some time before S.
At least one composition is performed either after O and before S, or after S and before O.

Setup Time: ______

12. Which one of the following lists the compositions in an order in which they could be performed during the concert, from first through eighth?
(A) L, P, S, R, O, T, F, H
(B) O, T, P, F, S, H, R, L
(C) P, T, F, S, L, R, O, H
(D) P, T, F, S, O, R, L, H
(E) T, F, P, R, O, L, S, H

13. P CANNOT be performed
(A) second
(B) third
(C) fourth
(D) sixth
(E) seventh

14. If T is performed fifth and F is performed sixth, then S must be performed either
(A) fourth or seventh
(B) third or sixth
(C) third or fourth
(D) second or seventh
(E) first or fourth

15. If O is performed immediately after T, then F must be performed either
(A) first or second
(B) second or third
(C) fourth or sixth
(D) fourth or seventh
(E) sixth or seventh

16. If S is performed fourth, which one of the following could be an accurate list of the compositions performed first, second, and third, respectively?
(A) F, H, P
(B) H, P. L
(C) O, P, R
(D) O, P, T
(E) P, R, T

17. If P is performed third and S is performed sixth, the composition performed fifth must be either
(A) F or H
(B) F or O
(C) F or T
(D) H or L
(E) O or R

18. If exactly two compositions are performed after F but before O, then R must be performed
(A) first
(B) third
(C) fourth
(D) sixth
(E) seventh

Total Time: ______

Did you feel...	Y	-	N
You understood basic design and laid it out well			
You understood and notated all rules well			
You recognized the most significant aspects			
You didn't make a diagramming mistake			
You used correct question strategies			
You felt confident			

Game 4 | PT 35, G4

Exactly seven professors—Madison, Nilsson, Orozco, Paton, Robinson, Sarkis, and Togo—were hired in the years 1989 through 1995. Each professor has one or more specialities, and any two professors hired in the same year or in consecutive years do not have a specialty in common. The professors were hired according to the following conditions:

Madison was hired in 1993, Robinson in 1991.
There is at least one specialty that Madison, Orozco, and Togo have in common.
Nilsson shares a specialty with Robinson.
Paton and Sarkis were each hired at least one year before Madison and at least one year after Nilsson.
Orozco, who shares a specialty with Sarkis, was hired in 1990.

Setup Time: ______

18. Which one of the following is a complete and accurate list of the professors who could have been hired in the years 1989 through 1991?
(A) Nilsson, Orozco, Robinson
(B) Orozco, Robinson, Sarkis
(C) Nilsson, Orozco, Paton, Robinson
(D) Nilsson, Orozco, Paton, Sarkis
(E) Orozco, Paton, Robinson, Sarkis

19. If exactly one professor was hired in 1991, then which one of the following could be true?
(A) Madison and Paton share a specialty.
(B) Robinson and Sarkis share a specialty.
(C) Paton was hired exactly one year after Orozco.
(D) Exactly one professor was hired in 1994.
(E) Exactly two professors were hired in 1993.

20. Which one of the following must be false?
(A) Nilsson was hired in 1989.
(B) Paton was hired in 1990.
(C) Paton was hired in 1991.
(D) Srkis was hired in 1992.
(E) Togo was hired in 1994.

21. Which one of the following must be true?
(A) Orozco was hired before Paton.
(B) Paton was hired before Sarkis.
(C) Sarkis was hired before Robinson.
(D) Robinson was hired before Sarkis.
(E) Madison was hired before Sarkis.

22. If exactly two professors were hired in 1992, then which one of the following could be true?
(A) Orozco, Paton, and Togo share a specialty.
(B) Madison, Paton, and Togo share a specialty.
(C) Exactly two professors were hired in 1991.
(D) Exactly two professors were hired in 1993.
(E) Paton was hired in 1991.

23. If Paton and Madison have a specialty in common, then which one of the following must be true?
(A) Nilsson does not share a specialty with Paton.
(B) Exactly one professor was hired in 1990.
(C) Exactly one professor was hired in 1991.
(D) Exactly two professors were hired in each of two years.
(E) Paton was hired at least one year before Sarkis.

Total Time: ______

Did you feel...	Y	-	N
You understood basic design and laid it out well			
You understood and notated all rules well			
You recognized the most significant aspects			
You didn't make a diagramming mistake			
You used correct question strategies			
You felt confident			

Game 1 Solutions | PT 29, G 2

Two mannequins—1 and 2—will be dressed for display in outfits chosen from ten articles of clothing. Each article is in exactly one of three colors: navy, red, or yellow. There are three hats—one in each color; three jackets—one in each color; three skirts—one in each color; and one red tie. Each mannequin wears exactly one of the hats, one of the jackets, and one of the skirts. Furthermore, their outfits must meet the following restrictions:

Neither mannequin wears all three colors.
Each mannequin wears a hat in a different color from the jacket it wears.
Mannequin 2 wears the navy skirt.
Mannequin 1 wears the tie.

10 items total!

tie	R	/	~~R~~
hat	___	___	N, R, Y
jacket	___	___	N, R, Y
skirt	___	___	N, R, Y
	1	2	

STEP ONE: I draw the diagram like mannequins—hat on top, jacket, then skirt. The last rule eliminated the complication regarding only one mannequin wearing a tie, and I draw that rule in right away. I also write out each possibility (N, R, Y) next to each item line so I can keep track of my very limited options.

10 items total!

tie	R	/	~~R~~
hat	___	___	N, R, Y
≠ jacket	___	___	N, R, Y
skirt	___	___	N, R, Y
	1	2	

STEP TWO: Not sure exactly how to draw the first rule, so I skip to the second. I have to remember hat and jacket can't be the same for either mannequin. (If you had another method for indicating that more clearly, then great!)

10 items total!

tie	R	/	~~R~~
hat	___	___	N, R, Y
≠ jacket	___	___	N, R, Y
skirt	___	N	~~N~~, R, Y
	1	2	

STEP THREE: I draw N into the second diagram. Now I know one color for each of the mannequins, which is kind of a big deal because the mannequins can't wear all three colors...

10 items total!

tie	R	/	~~R~~
hat	___	___	N, R, Y
≠ jacket	___	___	N, R, Y
skirt	___	N	~~N~~, R, Y
	1	2	

2 colors each

STEP FOUR: Going back to the first rule, if neither mannequin wears all three colors, and if their hat and jacket can't be the same, each mannequin wears exactly two colors. Mannequin 1 wears R and one other color, and Mannequin 2 wears N and one other color. The key inference is that each mannequin can only wear two colors; I know one of the colors for each mannequin, and hat and jacket can't be the same. I'm ready.

comments

The design of this game is not particularly complicated and it doesn't overwhelm us with the number of rules. It also helps that the hypothetical scenario—the dressing of a mannequin—is something most of us can picture quite easily.

Still, this is a game that can pose significant challenges, especially under time pressure. Though there aren't too many elements or positions, there are three dimensions to consider—the mannequin, the item of clothing, and the color—and it can be a challenge, especially if you rush the beginning of your process, to recognize how you should lay it out.

For this game, it is particularly important to get a careful general understanding of the situation and to make important decisions about how to lay out the base of the diagram before you start putting pencil to paper.

In addition, it's important to understand that there are ten total elements and that there is exactly one navy hat, one red hat, and so on.

The main issue at hand is which color hat, jacket, and skirt each mannequin will wear. The tie is a secondary issue that can be taken care of quickly. Notice we drew that last rule immediately into our diagram, because it was easy enough to do so.

The first rule is the most challenging to diagram, and when you find you can't diagram something easily, it makes sense to hold off on it. These problems have a way of fixing themselves (if they don't, and worst comes to worst, we can just write out the rule in words). Combining the first and second rules gives us our one key inference: each mannequin must wear exactly two colors. Considering that we already know of one color for each mannequin, and considering that the hat and jacket have to be different, we can go into the answer choices with an extremely limited range of options for how we occupy each space.

Overall, this is a difficult game to conceptualize, but if you can create a workable diagram, the constraints are quite manageable. If you are able to make the key inference, and if you focus on the limitations of the game, the questions can go quite quickly.

Kudos if you...

Came up with a clever (shapes?) way to mark that the hat Ó the jacket.

Beware...

The danger of forgetting the specific design of the game—namely that there is exactly one each of every color of clothing.

Did you...

Initially think of the colors as subsets and mark your elements Hn, Hr, etc.? If so, did you rush in thinking about the base of your diagram?

Did you...

Miss the 2 colors each inference, or not understand it's significance? If so, did you see it after a few questions? If not, you may want to replay the game with it in mind to see the impact it has on the problem-solving process.

Game 1 Solutions | PT 29, G 2

Two mannequins—1 and 2—will be dressed for display in outfits chosen from ten articles of clothing. Each article is in exactly one of three colors: navy, red, or yellow. There are three hats—one in each color; three jackets—one in each color; three skirts—one in each color; and one red tie. Each mannequin wears exactly one of the hats, one of the jackets, and one of the skirts. Furthermore, their outfits must meet the following restrictions:

Neither mannequin wears all three colors.
Each mannequin wears a hat in a different color from the jacket it wears.
Mannequin 2 wears the navy skirt.
Mannequin 1 wears the tie.

10 items total!

	1	2	
tie	R	/	~~R~~
hat			N, R, Y
≠ jacket			N, R, Y
skirt		N	~~N~~, R, Y

2 colors each

7. Which one of the following could be complete outfits for the two mannequins?

~~(A)~~ mannequin 1: navy hat, red jacket, yellow skirt, red tie
mannequin 2: red hat, navy jacket, navy skirt
~~(B)~~ mannequin 1: red hat, red jacket, yellow skirt, red tie
mannequin 2: yellow hat, navy jacket, navy skirt
~~(C)~~ mannequin 1: red hat, yellow jacket, red skirt, red tie
mannequin 2: yellow hat, navy jacket, yellow skirt
(D) mannequin 1: yellow hat, red jacket, yellow skirt, red tie
mannequin 2: red hat, navy jacket, navy skirt
~~(E)~~ mannequin 1: yellow hat, yellow jacket, red skirt
mannequin 2: red hat, navy jacket, navy skirt

7 (D): This is your standard Rules question, and we want to employ our usual strategy of using the constraints to eliminate answers. The first rule allows us to get rid of (A). The second rule (B). The third rule (C). The fourth rule (E). That means (D) is correct.

9. If mannequin 1 wears the navy jacket, which one of the following could be true?

~~(A)~~ Mannequin 1 wears the yellow hat.
~~(B)~~ Mannequin 1 wears the yellow skirt.
~~(C)~~ Mannequin 2 wears the red hat.
~~(D)~~ Mannequin 2 wears the yellow hat.
(E) Mannequin 2 wears the yellow jacket.

	1	2
tie	R	/
hat	R	N
≠ jacket	N	
skirt	R	N

8. Which one of the following could be true of the mannequins' outfits?

~~(A)~~ Mannequin 1 wears the navy jacket and the yellow skirt.
~~(B)~~ Mannequin 2 wears the red hat and the red jacket.
~~(C)~~ Mannequin 1 wears exactly one red article of clothing.
~~(D)~~ Mannequin 1 wears exactly three yellow articles of clothing.
(E) Mannequin 2 wears no red articles of clothing.

8 (E): This is an unconditional Could Be True question, and this question is a good gauge of our understanding of the game—if we are in control of it, we should be able to see, hopefully without too much effort, that four answers must be false. If we have a lot of trouble seeing that, it's a sign that we are missing key inferences, or that there is something wrong with the diagram.

(A) must be false because that would give Mannequin 1 three colors. (B) must be false because 2's hat and jacket must be different colors. If (C) were true, 1 would have to wear the same color jacket and hat—cut (C). (D) can't be true because hat and jacket can't be the same. (E) seems like it can definitely be true, and it's the only one we haven't eliminated. It just takes a second to make sure it can work: no reason Mannequin 2 can't be navy and yellow.

By the way, if you didn't see initially that each mannequin must wear exactly two colors, the work you did in this problem could have tipped you off on that inference.

9. (E): If Mannequin 1 wears the navy jacket, it must wear the red hat, for its hat and jacket color cannot be the same. It must also wear a red skirt, for it must wear navy or red and the navy skirt is already taken. Mannequin 2 must wear a navy hat or jacket, and since 1 is wearing the navy jacket, 2 must wear the navy hat. The only thing that remains uncertain is the jacket for mannequin 2.

Since this is a Could be True, we should expect the work we've done to eliminate the 4 must be false answers, and that is indeed the case. (A), (B), (C), and (D) all must be false. Therefore, (E) is correct.

10. If all four of the red articles of clothing are included in the two mannequins' outfits, which one of the following must be true?

(A) Mannequin 1 wears the red hat.
(B) Mannequin 1 wears the yellow jacket.
(C) Mannequin 2 wears the navy jacket.
(D) Mannequin 1 wears no navy articles of clothing.
(E) Mannequin 2 wears no yellow articles of clothing.

tie	R	/	~~R~~
hat	R/	/R	N, R, Y
≠			
jacket	R/	/R	N, R, Y
skirt	R	N	~~N~~, R, Y
	1	2	

2 colors each

10. (E): If all four red items are included, that must mean Mannequin 1 wears the red skirt, and one mannequin must wear the red hat, and the other the red jacket. We don't know more beyond that, but that's enough to see that (E) must be true.

11. If mannequin 2 wears the red jacket, then mannequin 1 must wear the

(A) navy hat
(B) red hat
(C) yellow hat
(D) red skirt
(E) yellow skirt

11. (B): We know Mannequin 1 must wear the red hat or the red jacket. If Mannequin 2 wears the red jacket, 1 must wear the red hat. No diagram needed here. (B) is correct.

12. If all three of the yellow articles of clothing are included in the two mannequins' outfits, which one of the following could be true?

~~(A)~~ Mannequin 1 wears the navy jacket.
(B) Mannequin 1 wears the yellow jacket.
~~(C)~~ Mannequin 1 wears the red skirt.
~~(D)~~ Mannequin 2 wears the red hat.
~~(E)~~ Mannequin 2 wears the red jacket.

tie	R	/	~~R~~
hat	R/Y	N/Y	N, R, Y
jacket	R/Y	N/Y	N, R, Y
skirt	Y	N	~~N~~, R, Y
	1	2	

2 colors each

12. (B): If all three yellow items are included, that means that Mannequin 1's colors will be red and yellow, and Mannequin 2's colors will be navy and yellow. 1 must wear the yellow skirt, but we don't know which one wears the yellow hat and the yellow jacket. Now we're ready to evaluate answers. We want to knock off four answers that must be false. (A), (C), (D) and (E) must all be false. Therefore, (B) is correct.

13. If mannequin 1 wears the skirt that is the same color as the jacket that mannequin 2 wears, which one of the following must be true?

(A) Mannequin 1 wears the yellow hat.
(B) Mannequin 1 wears the yellow jacket.
(C) Mannequin 2 wears the navy hat.
(D) Mannequin 2 wears the red hat.
(E) Mannequin 2 wears the red jacket.

tie	R	/	R	/
hat	Y	N	R	N
≠				
jacket	R	Y		R
skirt	Y	N	R	N
	1	2	1	2

2 colors each

13. (C): The color they share could be yellow or red, so let's play both out. Notice that the only inference true to both scenarios is that 2 must wear a navy hat. Since this is a Must be True, it's a strong bet that it's going to be the answer, and indeed it's there. (C) is correct.

Game 2 Solutions | PT 31, G 2

A music store carries ten types of CDs—both new and used of each of jazz, opera, pop, rap, and soul. The store is having a sale on some of these types of CDs. The following conditions must apply:

Used pop is on sale; new opera is not.
If both types of pop are on sale, then all soul is.
If both types of jazz are on sale, then no rap is.
If neither type of jazz is on sale, then new pop is.
If either type of rap is on sale, then no soul is.

sale	not

Jn On Pn Rn Sn
Ju Ou Pu Ru Su

STEP ONE: We can start by just drawing a small t-diagram that will help us visualize the situation, and by writing out the different CDs.

sale	not
Pu	On

Jn On Pn Rn Sn
Ju Ou Pu Ru Su

STEPTWO: The first rule is an easy one.

sale	not
Pu	On

Jn On Pn Rn Sn
Ju Ou Pu Ru Su

Pn → Sn + Su
~~Sn~~ or ~~Su~~ → ~~Pn~~

STEP THREE: Now we get to our first conditional. We can make a small inference about this rule because we already know that Pu is on sale. If you wrote Pu + Pn → ..., that's of course fine. Kudos if you split the conditional.

sale	not
Pu	On

Jn On Pn Rn Sn
Ju Ou Pu Ru Su

Pn → Sn + Su
~~Sn~~ or ~~Su~~ → ~~Pn~~
Jn + Ju → ~~Rn~~ + ~~Ru~~
Rn or Ru → ~~Jn~~ or ~~Ju~~

STEP FOUR: The next conditional rule. Of course, we have to be extremely careful about making sure that our notations are correct. I go super-slow and review my work.

sale	not
Pu	On

Jn On Pn Rn Sn
Ju Ou Pu Ru Su

Pn → Sn + Su
~~Sn~~ or ~~Su~~ → ~~Pn~~
~~Jn~~ + ~~Ju~~ → Pn
~~Pn~~ → Jn or Ju
Jn + Ju → ~~Rn~~ + ~~Ru~~
Rn or Ru → ~~Jn~~ or ~~Ju~~

STEP FIVE: The next conditional rule. By this point it's pretty clear that these rules are intricately related—the P's and J's have all already been mentioned multiple times.

sale	not
Pu	On

Jn On Pn Rn Sn
Ju Ou Pu Ru Su

Pn → Sn + Su
~~Sn~~ or ~~Su~~ → ~~Pn~~
~~Jn~~ + ~~Ju~~ → Pn
~~Pn~~ → Jn or Ju
Jn + Ju → ~~Rn~~ + ~~Ru~~
Rn or Ru → ~~Jn~~ or ~~Ju~~
Rn or Ru → ~~Sn~~ + ~~Su~~
Sn or Su → ~~Rn~~ + ~~Ru~~

STEP SIX: And the final conditional. Again, we want to be super-careful about making sure our ands and ors and all that are correct. On my actual paper, I had all of the conditionals lined up vertically. That makes it a bit easier to work through them during questions. Ou is the only free agent.

comments

The challenge of this game does not lie in its general design: the idea that some CDs are used and some are not, and we're going to determine which CDs are on sale and which ones are not is all fairly simple and straightforward.

The challenge of this game comes from the number of rules that we have to keep in mind, and from the complexity of those rules. The simplest constraint we're given, the first one, is actually two rules, and the rest of the constraints are all compound conditionals—that is, conditional statements involving more than two elements. These are difficult to notate correctly, take the contrapositive of correctly, and work with correctly as you solve problems.

What makes it all the more difficult is that many of the questions require you to bring these rules together in complex ways. In order to do so successfully, you need to have complete confidence in your notations.

One subtle but helpful inference has to do with the combining of the first two rules—since we already know that used pop is on sale, the statement "If both types of pop are on sale," can be thought of in terms of "if new pop is on sale." Again, it's a very small inference, and you could have done just fine on the game without it, but when the test writers build in such subtle inferences, they also tend to build in rewards for those who see them—and that is certainly the case here (that is, the rule is more useful using "if new pop is on sale" as the trigger).

It goes without saying that you need to be extremely careful in setting up and diagramming this game—one mistake with a conditional and you will be in trouble. At the same time, since there are few up-front inferences, and little work to be done other than directly translating (and taking the contrapositive of) the rules, the setup should not take you significantly longer than that for other games. The extra burden comes in the process of answering questions— the questions are going to require quite a bit of work from us. Comfort with these diagramming systems is essential for your success.

Did you...

Link certain conditional statements together? It might save you time on the questions if you did, but know that it's not a necessary step. If you are going to do it, make sure you are quick, and most importantly, accurate.

Did you...

Have an easy time understanding why "or" is in the contrapositive of "and" and vice versa? If not, you may want to review Lesson 13 again.

Key considerations:

(1) These are complicated rules—it's worth it to triple-check all of your notations to make sure that they are correct.
(2) Almost all of the rules are conditional, and there aren't many up-front inferences—we should expect to do a lot of work in the questions themselves.

Game 2 Solutions | PT 31, G 2

A music store carries ten types of CDs—both new and used of each of jazz, opera, pop, rap, and soul. The store is having a sale on some of these types of CDs. The following conditions must apply:

Used pop is on sale; new opera is not.
If both types of pop are on sale, then all soul is.
If both types of jazz are on sale, then no rap is.
If neither type of jazz is on sale, then new pop is.
If either type of rap is on sale, then no soul is.

sale	not
Pu	On

Jn On Pn Rn Sn
Ju Ou Pu Ru Su

Pn → Sn + Su
~~Sn~~ or ~~Su~~ → ~~Pn~~
~~Jn~~ + ~~Ju~~ → Pn
~~Pn~~ → Jn or Ju

Jn + Ju → ~~Rn~~ + ~~Ru~~
Rn or Ru → ~~Jn~~ or ~~Ju~~
Rn or Ru → ~~Sn~~ + ~~Su~~
Sn or Su → ~~Rn~~ + ~~Ru~~

7. Which one of the following could be a complete and accurate list of the types of CDs that are on sale?

(A) new jazz, used jazz, used opera, used pop, new rap
(B) new jazz, used pop, used rap, new soul
(C) used opera, used pop, new rap, used rap
(D) used opera, new pop, used pop, new soul
(E) used jazz, used pop, new soul, used soul

7. (E): This is your standard Rules question, and we want to employ our usual strategy of using the constraints to eliminate answers. The first rule doesn't allow us to get rid of any choices. The second rule allows us to get rid of (D). The third rule (A). The fourth rule (C). The last rule (B). That means (E) is correct.

8. If new soul is not on sale, then which one of the following must be true?

(A) New rap is not on sale.
(B) New rap is on sale.
(C) Used opera is not on sale.
(D) At least one type of jazz is not on sale.
(E) At least one type of pop is not on sale.

sale	not
Pu	On
Jn or Ju	Sn
	Pn

8. (E): We want to start by looking for ~~Sn~~ in the trigger, and see that the only consequence is ~~Pn~~. If Pn is not on sale, Jn or Ju is. That seems to be the last of the inferences. Now we're ready to evaluate answers. We have no information that pertains to (A) - (D), but we know (E) must be true.

9. If both types of jazz are on sale, then which one of the following is the minimum number of types of new CDs that could be included in the sale?

(A) one
(B) two
(C) three
(D) four
(E) five

sale	not
Pu	On
Jn	Rn
Ju	Ru

9. (A): If both Jn and Ju are in, Rn and Ru are out. There are no other obvious inferences to be made. Before we go on to the answers, we want to check if there is some other reason why any of the remaining new CDs must be on sale. If we check Pn, there is no trigger forcing it in or out. If we check Sn, we get the same. Therefore, the minimum number of new CD's on sale is 1, and (A) is correct.

10. Which one of the following CANNOT be true?

(A) Neither type of opera and neither type of rap is on sale.
(B) Neither type of jazz and neither type of opera is on sale.
(C) Neither type of opera and neither type of soul is on sale.
(D) Neither type of jazz and neither type of soul is on sale.
(E) Neither type of jazz and neither type of rap is on sale.

10. (D): This type of question—an unconditional "must be false" question with what appears at first glance to include complex answer choices—is a classic time-sucker. What we don't want to do is waste time over-thinking answer choices, wondering if there is something we are not seeing that forces them to be false. The hope is that we can quickly evaluate each answer, see if there are any *simple* reasons that it must be false, and if we don't see any, move on. The hope is that there is an answer that *clearly* must be false, and if you've done your work correctly up to this point, most of the time that will be the case.

For (A), we look for consequences for opera or rap cd's being out—there don't seem to be any. For (B), that neither type of jazz is on sale means Pn must be—while that has a chain of consequences, the consequences have no impact on either of the Os. For (C), opera being out has no consequences; neither type of soul being in does have consequences, but we can't tie them in any way to the Os, and so we can't say (C) must be false. For (D), if neither type of jazz is on sale, we see that Pn is, and if Pn is, Sn and Su must be as well. (D) must be false, and (D) is the correct answer. There is no need to check (E), but you can do so if you are uncertain at all about (D).

12. If new soul is the only type of new CD on sale, then which one of the following CANNOT be true?

(A) Used jazz is not on sale.
(B) Use opera is not on sale.
(C) Used rap is not on sale.
(D) Used soul is on sale.
(E) Used soul is not on sale.

sale	not
Pu	On
Sn	Jn
Ju	Pn
	Rn
	Ru

12. (A): We start this question by putting Sn in the *sale* area AND by putting Jn, Pn, and Rn in the *not* area. Then we look for consequences. Ru must be out because Sn is in, and Ju must be in because Pn is out. We can see that (A) must be false, and can pick it and move on. (A) is correct.

11. If neither type of jazz is on sale, then each of the following must be true EXCEPT:

(A) Used opera is on sale.
(B) New rap is not on sale.
(C) Used rap is not on sale.
(D) New soul is on sale.
(E) Used soul is on sale.

sale	not
Pu	On
Pn	Jn
Sn	Ju
Su	Rn
	Ru

11. (A): The condition that both Js are out triggers a long chain of consequences: Pn must be in, and so Sn and Su must be in, and so Rn and Ru must be out. Note that every element is accounted for except Ou, which we know is a wildcard anyway. Time to attack these answers: (A) is about Ou, our only uncertainty, and if you really felt confident in your work, you could pull the trigger. However, it also takes very little time to see that (B) - (E) all must be false based on the inferences we made, and I would personally double-check those just to feel 100% confident. (A) is correct.

13. If exactly four of the five types of used CDs are the only CDs on sale, then which one of the following could be true?

~~(A)~~ Used jazz is not on sale.
~~(B)~~ Used opera is not on sale.
(C) Used rap is not on sale.
~~(D)~~ Neither type of jazz is on sale.
~~(E)~~ Neither type of rap and neither type of soul is on sale.

sale	not
Pu	On
Ju	Jn
Ou	Pn
Ru/Su	Rn
	Ru/Su

13. (C): This is probably the most clever of all the questions for this game, and the one that requires the most clarity of thought from us. We're given the condition that exactly four of the five types of used CDs are the only CDs on sale. The immediate thought should be: Do we have clues about which four they could be? (We must! Otherwise, they would not have designed the question this way.) We're looking for a rule where one used CD forces another used CD out, and the last one does it for us—if either Ru or Su is in, it forces the other one out. That means that either Ru or Su must be out. We can write out what we know as I did above.

Once we have the elements all laid out, we can check one more time to see if placing elements into *sale* or *not* leads to any more inferences, and it does not. We should expect to eliminate four answer choices. (A) must be false. (B) must be false. (C) could be true. (D) must be false. (E) must be false. (C) is correct.

Game 3 Solutions | PT 32, G 3

At a concert, exactly eight compositions—F, H, L, O, P, R, S, and T—are to be performed exactly once each, consecutively and one composition at a time. The order of their performance must satisfy the following conditions:

T is performed either immediately before F or immediately after R.
At least two compositions are performed either after F and before R, or after R and before F.
O is performed either first of fifth.
The eighth composition performed is either L or H.
P is performed at some time before S.
At least one composition is performed either after O and before S, or after S and before O.

Comments: The overall scenario is a simple and common one: eight elements in an order. The challenge of this game is in the rules—each one is designed to have a certain amount of uncertainty (notice all of the "ors"). The key to this game is to have notations that are easy to understand and easy to work with.

```
                              F  P
_ _ _ _ _ _ _ _               H  R
                              L  S
                              O  T
```

STEP ONE: We can start by laying out a basic diagram. Note that on my paper I list all of the elements in one column; it's written this way here for the sake of space.

```
O/           /O               F  P
_ _ _ _ _ _ _ _               H  R
                              L  S
F _ _ ...R                    O  T
```

STEP TWO: The first rule is not terribly complicated, but it is a bit of a messy rule, and commonly it helps to leave these until later. Let's move on to the second and third rules, and diagram them as I did above.

```
O/           /O               F  P
_ _ _ _ _ _ _ L/H             H  R
                              L  S
F _ _ ...R     P — S _ ...O   O  T
```

STEP THREE: The fourth, fifth, and sixth rules are all common ones as well, and ones you should be comfortable diagramming. I've drawn the fifth and sixth rule together.

```
O/           /O               F  P
_ _ _ _ _ _ _ L/H             H  R
                              L  S
F _ _ ...R     P — S _ ...O   O  T

        TF or RT
```

STEP FOUR: Now we need to go back to the first rule. We could try to incorporate it into the notation for the second rule, which involves F and R, and though there are some creative ways we can do this, I can't see any that are going to be intuitive for me (that is, they may be creative, but they won't help me understand the situation in an "easier" way, perhaps because I will forget exactly what my symbol meant). So, I just note it the way I have above. (Notice that the "or" in the first rule could technically mean we have "RTF," but the second rule excludes this possibility.)

Now that we have all of our elements laid out, let's look for some inferences. Unfortunately, there are not a whole lot! This is a complicated game, and there is too much uncertainty for us to see much of anything too clearly up front. We do have the F _ _ ... R (or vice-versa) block, and that coupled with the TF or RT rule will likely define much of the game. The O needing to go either first or fifth, and then impacting where the S and P go, will also likely be important. With all that in mind, let's double— check all our notations again (look at each notation, say to yourself what it means, and check this understanding against the scenario and rules as written), and move on to the questions.

12. Which one of the following lists the compositions in an order in which they could be performed during the concert, from first through eighth?

(A) L, P, S, R, O, T, F, H
~~(B)~~ O, T, P, F, S, H, R, L
~~(C)~~ P, T, F, S, L, R, O, H
~~(D)~~ P, T, F, S, O, R, L, H
~~(E)~~ T, F, P, R, O, L, S, H

12. (A): This is the standard rules question, and so we know that we can use the rules to eliminate answer choices. The first rule eliminates (B). The second (E). The third (C). The fourth rule doesn't eliminate an answer, nor does the fifth. The sixth rule eliminates (D). That leaves us with (A).

13. P CANNOT be performed

(A) second
(B) third
(C) fourth
(D) sixth
(E) seventh

13. (E): This is an unconditional question, and we are being asked about something that must be. Before we look at the answer choices, we want to see for ourselves where P cannot go.

We know that P must go before S, and since S can't go last, the earliest P can go is sixth. There could be some other reason, perhaps involving the placement of the F/R rule, that limits where P can go, but I don't see it and I don't want to waste time digging that out if I don't have to. I go into the answers hoping "seventh" will be there... And it is! We can select (E) and move on.

Note that eighth would NEVER be the right answer in this context. Why? Because the right answer must be something inferred, not something told to us in the rules.

At this point, I realize I did not represent last rule in the easiest way—it simply means S and O can't be next to each other. I just kept this in mind, but if you want to change your diagram at this point you could.

14. If T is performed fifth and F is performed sixth, then S must be performed either

(A) fourth or seventh
(B) third or sixth
(C) third or fourth
(D) second or seventh
(E) first or fourth

O R _ _ T F _ L/H

P — S

14. (A): This is a conditional question, and so we want to take the conditions and see what else we can figure out. Notice, per the way the question is phrased, that our ultimate goal is to figure out where S can go, and that if we do our work right, we should see that S can only go in two spaces.

If we put T in 5 and F in 6, O must go in 1. We still seem to have a lot of spots where S can go, but we haven't used the F _ _ ...R (and vice versa) rule yet—R must go in 2 or 3. Knowing that, and knowing S must follow P, we know that S must go in 4 or 7.

15. If O is performed immediately after T, then F must be performed either

(A) first or second
(B) second or third
(C) fourth or sixth
(D) fourth or seventh
(E) sixth or seventh

_ _ R T O F _ L/H

15. (E): The construction of this question is similar to that of the last one, and so we want to play off of the condition, and then try to figure out the two positions where F can be placed.

If O is immediately after T, we know O must be in 5, and T in 4. Since F can't follow T, R must precede T, and so R must go in 3. Since L or H must go last, and since F must be at least three spots away from R, F must be in 6 or 7.

Game 3 Solutions | PT 32, G 3

At a concert, exactly eight compositions—F, H, L, O, P, R, S, and T—are to be performed exactly once each, consecutively and one composition at a time. The order of their performance must satisfy the following conditions:

T is performed either immediately before F or immediately after R.
At least two compositions are performed either after F and before R, or after R and before F.
O is performed either first of fifth.
The eighth composition performed is either L or H.
P is performed at some time before S.
At least one composition is performed either after O and before S, or after S and before O.

O/ _ _ _ _ /O _ _ L/H

F P
H R
L S
O T

F _ _ ...R   P — S _ ...O

TF or RT

16. If S is performed fourth, which one of the following could be an accurate list of the compositions performed first, second, and third, respectively?

(A) F, H, P
(B) H, P, L
(C) O, P, R
(D) O, P, T
(E) P, R, T

P, F/R

O _ _ S _ _ _ L/H

17. If P is performed third and S is performed sixth, the composition performed fifth must be either

(A) F or H
(B) F or O
(C) F or T
(D) H or L
(E) O or R

O _ P _ _ S _ L/H

TF or RT

16 (C): We know to work off of the condition, and we know that we will know some things, but not everything, about the placement of elements in 1, 2, and 3.

Since S and O can't be next to one another, if S is in 4, O must be in 1. P must be in 2 or 3 (because it has to be before S). Now we look to the other rules. Because F and R need sufficient space between one another, one of the two must go in one of the first three spots, and unless there is something incredibly clever going on (and if there is, we'll have a chance to double-check our work later), that means either F or R (we don't know which one) has to be the final element in the first 3 spots.

Okay, so what do we know? That O is in 1, and that P and F or N need to occupy 2 and 3. Based on O needing to go first, we could eliminate (A), (B), and (E). Per our inferences, (D) is not a possibility. That means (C) is correct.

17. (C): We know, based on the way the question is asked, that once we infer off of the conditions given, we will end up with two possibilities for the fifth spot. If we place P in 3, and S in 6, that means O must be in 1. This still seems to leave a lot of options for F _ _ ...R (and vice-versa). So we draw out what we've got.

The key issue now is that we've got to fit in the TF or RT block, and there is only one place to put it: 4/5. Therefore, the fifth spot must be occupied by F or T. (C) is correct.

18. (D): We know to work off the condition, and we know that at the end of our work we must find an exact position for R. If F is before O, we know O must be in 5, and therefore F must be in 2. Since R must be at least 3 spaces away from F, that puts R in 6 or 7.

18. If exactly two compositions are performed after F but before O, then R must be performed

(A) first
(B) third
(C) fourth
(D) sixth
(E) seventh

_ F _ _ O R T L/H

T F _ _ O R _ L/H

P F S L/H O R T L/H

_ F _ _ O R _ L/H

T F P, L/H _ O R S L/H

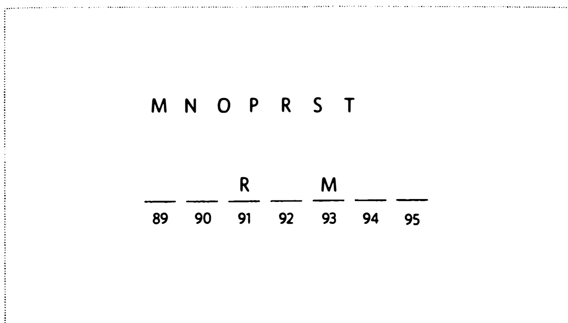
That's a good start, but it's not enough. We've got two rules we haven't used (TF or RT, and P - S), and either can help us more clearly understand the situation. If we try to implement the first, we see that there are two possible locations for T—1st and 7th. Let's draw those two out.

At this point, if you were stressed for time, you could just confirm that the first possibility works, then say that R in 6th must be it. However, if you are striving for - 0, or just don't think like that, it'll just take a few more seconds to confirm that in both options, R must be in 6th. For the lower option, S must follow O, and, since S can't immediately follow O, S must go in 7th. That places R in 6th. (D) is correct.

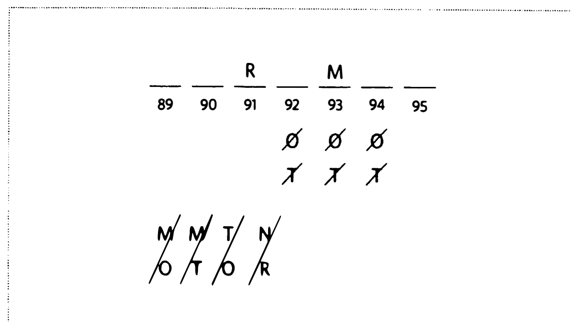
Game 4 Solutions | PT 35, G 4

Exactly seven professors—Madison, Nilsson, Orozco, Paton, Robinson, Sarkis, and Togo—were hired in the years 1989 through 1995. Each professor has one or more specialities, and any two professors hired in the same year or in consecutive years do not have a specialty in common. The professors were hired according to the following conditions:

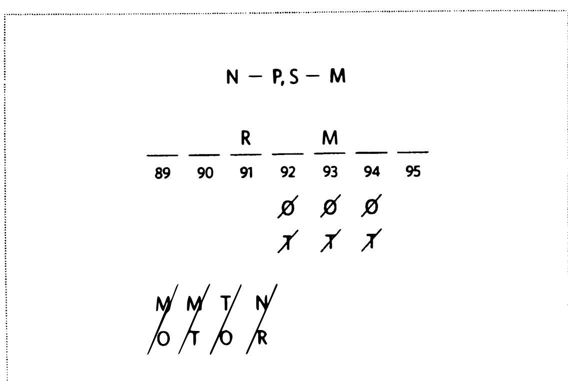
Madison was hired in 1993, Robinson in 1991.
There is at least one specialty that Madison, Orozco, and Togo have in common.
Nilsson shares a specialty with Robinson.
Paton and Sarkis were each hired at least one year before Madison and at least one year after Nilsson.
Orozco, who shares a specialty with Sarkis, was hired in 1990.



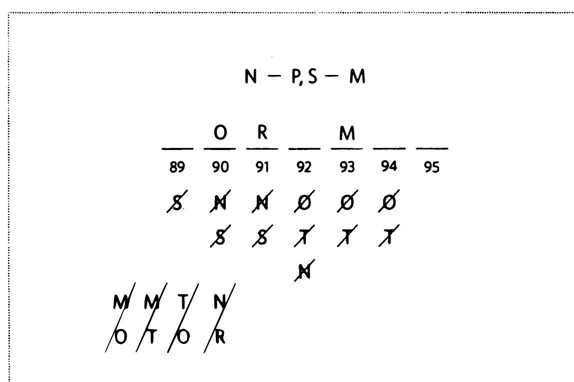
STEP ONE: This is an unusual game, and you probably want to read the comments before walking through the solutions, but in any case, here is the basic layout.



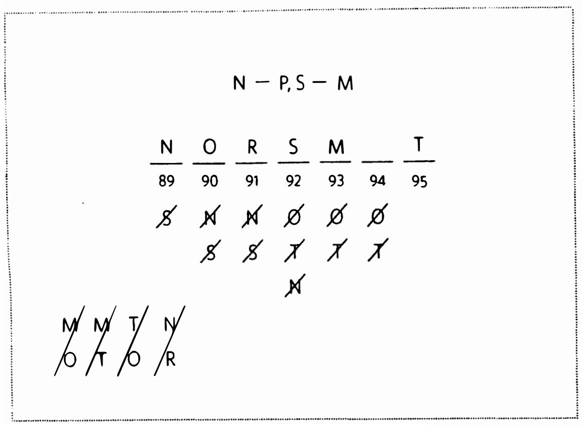
STEP TWO: Each rule about specialties is going to be a rule about which elements can't go together. We want to make sure to mark the rules and consequences on the diagram. Here it is after the second and third rules. I'm keeping in mind that my "not" notations below also mean the elements can't be immediately adjacent (writing all that out would be a nightmare).



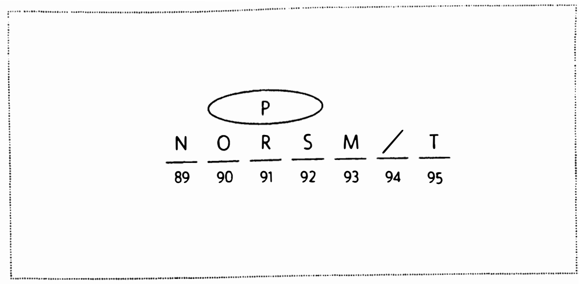
STEP THREE: The fourth rule is a (relatively) standard ordering rule. It's important to remember that multiple elements can go in any one year.



STEP FOUR: And the final rule gives us a concrete assignment, and another "not" pairing—O and S. Since we know where O is going, we can just cross S out from the relevant years: 89, 90, and 91.



STEP FIVE: We've just input a lot of information—let's think about how it goes together. S must go before M, but can't go in 89, 90, or 91. That means it must go in 92. N needs to go before S, but can't go in 90 or 91, so it must go in 89. Also, T can't be next to O, and so also can't go in 89, 90, or 91. That means T must go in 95. Here's what we've got so far, in its full glory.



STEP SIX: P is the only remaining element—after double-checking, we can see that all we know about it is that it goes in 90, 91, or 92. 94 is blank. At this point, considering that we know so much about the game, and considering that our diagram has gotten so detailed, it's not a bad idea to create a cleaner version to work off of. Note that we no longer need to consider the issues mentioned in the *not* rules and the ordering rule, because they have all already been accounted for in the placing of the elements. We can simply use the above to answer questions.

comments

When this game appeared on the LSAT, it was the fourth game of the section. That was a cruel decision by the test writers because most test takers by the time they get to the fourth game are rushed for time, and this particular game, more so than most, is one that rewards and makes challenging a careful and correct initial understanding.

There are three primary issues that can cause trouble if they are overlooked. The first is that even though the number of elements is equal to the number of positions, there is not a 1-to-1 relationship between elements and positions. There is one strong hint that indicates this in the scenario: "hired in the same year or in consecutive years..." Simple enough, but easy to miss.

The second issue is that of the "specialties." It's easy to assume, at first, that the specialties will just be like other subsets we've gotten used to, and, if you weren't careful, thinking the game is designed this way could lead to a troubled initial diagram. If we don't rush into interpreting specialties, what we notice is that we are never given any information about what these specialties are, and, in fact, the only thing we know about the specialties is that professors who share a specialty cannot be in the same or consecutive years.

The specialty is a red herring—saying two elements share a specialty is a convoluted way of saying two elements are not in the same year, or consecutive years, and that's it. Again, simple enough, but misinterpret it, and the game seems markedly more difficult.

Once you recognize those characteristics of the game for what they are, it's time to get into the rules more specifically. It turns out, if we understand the construction of the game correctly, the rules lend themselves to a long series of inferences. This is both good news and bad news. The good news is that if you are able to execute and uncover those inferences, the game becomes quite limited and the questions simple. The danger is that, with so many inferences out there for you to catch, right answers will surely require significant chains of thought, and if you don't have most or all of those inferences up front, or if you don't capture them during the solving of some of the earlier questions, you can be in for a long game.

All that is to say this is a game that really shows off the importance of a deliberate, careful start.

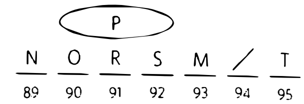
Kudos if you...

...waited to mark the specialties and saw them for what they truly were (clues about which elements can and cannot go with and next to one another).

Crazy kudos if you...

...ended up finding all of the inferences listed in the above solution. You have mad inference skills!

Exactly seven professors—Madison, Nilsson, Orozco, Paton, Robinson, Sarkis, and Togo—were hired in the years 1989 through 1995. Each professor has one or more specialities, and any two professors hired in the same year or in consecutive years do not have a specialty in common. The professors were hired according to the following conditions:



Madison was hired in 1993, Robinson in 1991.
There is at least one specialty that Madison, Orozco, and Togo have in common.
Nilsson shares a specialty with Robinson.
Paton and Sarkis were each hired at least one year before Madison and at least one year after Nilsson.
Orozco, who shares a specialty with Sarkis, was hired in 1990.

18. Which one of the following is a complete and accurate list of the professors who could have been hired in the years 1989 through 1991?

(A) Nilsson, Orozco, Robinson
(B) Orozco, Robinson, Sarkis
(C) Nilsson, Orozco, Paton, Robinson
(D) Nilsson, Orozco, Paton, Sarkis
(E) Orozco, Paton, Robinson, Sarkis

18 (C): (No Rules Question) As we discussed in Lesson 28, this is a question stem we want to make sure and read carefully ("complete... could"): here, we need to come up with a list of everyone who could have been hired in the years 89 - 91. We know N, O, and R were hired in those years, and we know P could have been hired in 90 or 91. We need an answer that includes all four of those elements and no others. (C) is correct.

19. If exactly one professor was hired in 1991, then which one of the following could be true?

(A) Madison and Paton share a specialty.
(B) Robinson and Sarkis share a specialty.
(C) Paton was hired exactly one year after Orozco.
(D) Exactly one professor was hired in 1994.
(E) Exactly two professors were hired in 1993.

19. (A): (A) could be true. (B) must be false. (C) must be false because P can't go in 91. We know (D) and (E) must be false. (A) is correct.

20. Which one of the following must be false?

(A) Nilsson was hired in 1989.
(B) Paton was hired in 1990.
(C) Paton was hired in 1991.
(D) Srkis was hired in 1992.
(E) Togo was hired in 1994.

20. (E): We know (E) must be false.

21. Which one of the following must be true?

(A) Orozco was hired before Paton.
(B) Paton was hired before Sarkis.
(C) Sarkis was hired before Robinson.
(D) Robinson was hired before Sarkis.
(E) Madison was hired before Sarkis.

21. (D): We know (D) must be true.

22. If exactly two professors were hired in 1992, then which one of the following could be true?

(A) Orozco, Paton, and Togo share a specialty.
(B) Madison, Paton, and Togo share a specialty.
(C) Exactly two professors were hired in 1991.
(D) Exactly two professors were hired in 1993.
(E) Paton was hired in 1991.

22. (A): (A) could be true. (B) must be false if P is in 92 and M in 93. And our diagram makes it clear that (C) and (D) must be false. Our inference makes (E) false.

23. If Paton and Madison have a specialty in common, then which one of the following must be true?

(A) Nilsson does not share a specialty with Paton.
(B) Exactly one professor was hired in 1990.
(C) Exactly one professor was hired in 1991.
(D) Exactly two professors were hired in each of two years.
(E) Paton was hired at least one year before Sarkis.

23. (E): (E) must be true.

How Did You Do?

You've just faced the best (or worst, depending on your mood) that the Logic Games section can offer. You've taken its hardest punches. How did you hold up?

If you were fairly successful in surviving these four tough games, consider yourself a bit of a games superstar. Make it your goal to not only *feel* that you *can* go -0 in the games section, but to be good enough so that you *know*, going in, that you *will* go -0 in the games section. If you didn't perform as well as you might have hoped—if these games kicked your butt a little bit, know that they were supposed to. These four games were meant to expose you to some of the more extreme challenges that you might face on test day. Each game was tough in its own way, and chances are—depending on your own strengths and weaknesses—you felt some were more difficult than others. Hopefully these games help you reflect on what you need to focus on in the last leg of your preparation.

The first game, the mannequin game, is challenging because it requires us to think about a large variety of information (the two mannequins, the items of clothing, colors of clothing, total number of clothes) and it's very easy to overlook one of those issues; in particular, it's easy to underestimate the importance of knowing there is exactly one item of each color, and ten items total. The key inference is that each mannequin wears exactly two colors. If you had trouble visualizing the game, or missed the key two-color inference, the questions become markedly more difficult.

In contrast to the first game, the second one, the CDs game, does not involve many different types of rules—the entire game hinges on your ability to correctly translate and utilize conditional rules. This game is arguably the most difficult conditional-centered game ever to appear on the LSAT. If you had difficulty, consider whether that difficulty came from having trouble understanding the rules, notating the rules, or using your notations to bring rules together and solve questions.

The situation for the third game, concert compositions, is also simple—just eight elements to be placed in an order. The challenge is the level of uncertainty that each rule presents—we're told of spaces in between elements, but not the order of those elements, and nearly every rule is presented as an "or" situation. In order to survive and succeed, you need to be comfortable using notations for these less-than-certain rules, and you need to be very flexible in your thinking.

Finally, the last game, the professors game, was the most sneaky in terms of its setup. It's imperative that you first read all the rules and developed a big picture understanding (the idea that "specialty" doesn't involve subsets, but rather is a hidden way of giving "not" rules). As long as you did that, chances are you were okay on the questions. However, this is also a game that rewards those who have very strong inference skills. If you were able to make the inferences up front that are included in the solution, the questions go very quickly.

Note that though all these games are unusually challenging, they are not necessarily unique—that is, the challenges they present are simply ratcheted-up versions of challenges that appear in other games. As such, they serve as great barometers of whether you are ready for the toughest challenges of the section. Make sure you use your results to take note of any weaknesses that need to be addressed.

30 LOGICAL REASONING reasoning structure questions

From the beginning of our Logical Reasoning preparation, we've broken up Logical Reasoning questions based on whether they require a subjective understanding or an objective one. The majority of Logical Reasoning questions require a subjective understanding—more specifically, they require us to critically evaluate the use of reasoning to justify a conclusion. Up to this point, these questions have been the focus of our studies. Hopefully, identifying the point, identifying the support, thinking about the flaw in reasoning, then working off of that understanding, has now become habit.

In this swatch of lessons, we will focus on questions that require an objective understanding of the information in the stimulus. These questions are designed to test your ability to understand and apply information. These questions are not designed to test your ability to judge, or evaluate that information, and when students have difficulties with objective questions, an inability to quell the part of themselves that wants to interject an opinion or hypothesis is often the culprit. Take that instinct out of the equation, and all objective questions become far more logical and simpler to solve.

We'll be looking at eight different types of objective questions in the next four lessons, and we will divide up our work as follows:

In this lesson, we will discuss objective questions that relate directly to the reasoning structure of arguments: identify the conclusion, identify the role, describe the method of reasoning, and match the reasoning. If you feel comfortable with your ability to solve subjective questions—the questions we've already discussed—then you already have all of the skills necessary to solve argument structure questions; for identifying a conclusion, recognizing the roles that parts of an argument play, and thinking about the reasoning structure of arguments are all fundamental to being able to critically evaluate reasoning. Additionally, these questions consistently reward test takers that have the mental discipline to not judge when judging is not the task at hand, and much of our work will be geared toward developing habits that will help you think about the right things, and no more.

In Lesson 32, we'll move on to Inference questions and Examples of a Principle questions. These will be the first questions we look at that are not dependent on argument reasoning structure—many stimuli for these questions will not contain arguments, and even when they do, your understanding of the argument will often *not* be central to answering the question correctly. These questions are straightforward and simple to understand, but they require a shift in mindset. We'll work on developing skills and habits that align specifically with these tasks.

In Lesson 33, we'll take a look at two final outlier question types—Identify the Disagreement and Explain a Discrepancy. These questions share a lot in common with the other argument-based questions on the exam, but they also present tasks that are somewhat unique.

Reasoning Structure Questions

On each exam, you will encounter several questions that test you on a specific part of the argument-evaluation process: your ability to *recognize* the structure of the argument correctly. These questions will test your understanding of the structure in a few different ways. The most common way is by asking you to correctly identify the main point or conclusion. Other less common questions will ask you what role a particular part of the stimulus plays in the argument as a whole. Other even less common questions will ask more directly—what is the method of reasoning the author uses here? Finally, and fairly commonly, questions will require you to recognize the reasoning structure of an argument, and to then identify one argument out of the five that is most similar in its design—these are Match the Reasoning questions.

Once you identify the reasoning structure of the argument, you want to immediately jump back to the task that the question stem presents. You should expect to have a very clear sense of the substance of your right answer before moving on to the answer choices

We'll soon discuss the specifics of each type of question, but it's important to know that there is great commonality to all questions that ask about the intended reasoning structure of the stimulus. You should feel, generally speaking, that you can attack these different types of questions in roughly the same way.

For all such questions, you should read the stimulus in the same way that you have for all of the types of questions we've discussed thus far—that is, you should read first to identify the main point, and then the support for that main point. You should always do this, even for questions that ask about parts of the passage that seem to play neither role. Your understanding of the main point and its support is what determines your understanding of the rest of the reasoning structure.

As mentioned before, the one thing you do *not* want to do is evaluate the reasoning in the argument critically—that is, you want to waste no time, and allow yourself no negative influence, thinking about how *well* the reasoning given does or does not support the conclusion. Those thoughts are simply not relevant for right answers, and can very often lead you to be tempted by wrong answers you wouldn't be tempted by otherwise. Once you identify the reasoning structure of the argument, you want to immediately jump back to the task that the question stem presents—whether that be thinking about the structure of the passage as a whole, the role of one component, or (most commonly) the main point. You should expect to have a very clear sense of the substance of your right answer before moving on to the answer choices.

A key strategy that is common to top scorers is that once this pre-phrase is established, they use it not to dig out a right answer, but rather to eliminate wrong ones. The right answers for harder versions of these questions are often vague, awkwardly written, and otherwise less than perfect. It can be very hard to say definitively that an answer is correct. However, wrong answers must always be clearly and absolutely incorrect. It is consistently easier and, with practice, faster, to eliminate four wrong answers than it is to identify the right answer. We'll prioritize this elimination process along the way.

Conclusion

"Which of the following best expresses the main conclusion of the argument?"
"Which one of the following most accurately expresses the conclusion of the argument?"

Conclusion, or main point, questions are very common and as straightforward as Logical Reasoning questions get. The key to solving these questions is a strong and singular understanding of task—you make your life much easier by knowing exactly what to think about, and more importantly, by knowing what not to think about. Don't overcomplicate these questions—they present a very simple task, and the more basic you consider the task, the better.

step one: understand your job

As always, we want to begin by reading the question stem. Main point questions are easy to identify—just make sure not to confuse them with Inference questions, which we will cover in lesson 32. Main point questions test our ability to understand the argument as the author presented it. They punish test takers who lack a strong understanding of reasoning structure, and they punish those who extrapolate or get influenced by personal bias. Your job is to understand but not judge.

step two: find the point

This is, of course, the key step here. Just as we've always done, we want to make finding the conclusion our primary task for the initial read of the stimulus. As you might expect, these questions will commonly have intermediate or opposing conclusions meant to throw us off the scent. Remember that the main point will always have supporting reasoning, and when deciding between two main points, you should think about which point is being used to support the other. Most commonly, the main point for these questions will be somewhere in the middle of the argument (the most difficult place to find it). It may be split up through the use of a pronoun or some other device (*"but this idea is wrong,"* for example) but it will be one clear, singular idea. You must have a very specific sense of the conclusion before going into the answer choices.

step three: find the support

Once you feel fairly certain you have the main point, you want to look for the reasoning, just as you've always done. If you have the correct conclusion, the reasoning used to support it, and subsequently, the parts of the argument meant to oppose or give background, should be fairly clear to see. Finding the support and seeing the rest of the reasoning structure is a great way to confirm that the conclusion you identified is indeed the main point.

step four: get rid of answers

The big difference between how you will solve the questions in this lesson, and how you've solved subjective questions, is that for objective questions you do not want to waste any time (nor do you want to distract yourself) thinking about how well the reasoning supports the conclusion. Instead, confirm your understanding of the main point, keep that in your head, go straight into the answer choices, and actively search for wrong answers to eliminate. Incorrect answers will all have at least one of two characteristics—they will focus on parts of the argument (support, background, etc.,) that are not the conclusion; or they will extrapolate from the conclusion, commonly by generalizing, becoming more specific or extreme, or bringing in outside information. If you have a specific sense of the conclusion, these wrong answers should be obvious to see, and your goal should be to quickly eliminate four almost every time.

step five: confirm the right answer

The right answer may use unusual or awkward wording that you may not be able to anticipate, but in its substance the right answer should be a very close match to the conclusion you identified in the text. The most tempting wrong answers will commonly take one extra step beyond what the text gives us, and when choosing between two answers, you want to go with the one that is closest to the actual information in the argument. Keep in mind that right answers will commonly bring up background or opposing points, but if those elements are mentioned, their roles relative to the main point will be made explicitly clear (see notes under super-simple example).

SUPER-SIMPLE EXAMPLE

In a recent interview, the CEO of ABC Tech blamed the current economic climate for the recent decline in sales. However, his response does not take into account several significant issues. For example, other companies are now providing products that are similar to those that ABC makes, and these new products are more durable and far more affordable.

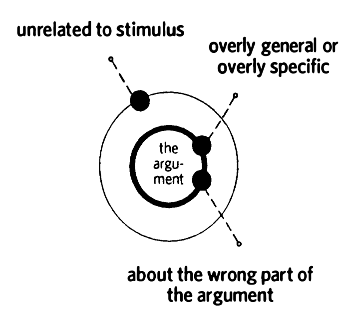
Which of the following best represents the main conclusion of the argument?

(A) The current economic climate has had no impact on the recent decline in sales.
(B) The CEO's statement failed to include issues that are relevant to the recent decline in sales.
(C) Other companies now make products that are better versions of those that ABC makes.
(D) Other companies now make products that are similar to those that ABC makes, but these products cost less and last longer.
(E) The CEO made his statements with the purpose of intentionally misleading the public.

The correct answer is (B). The author's main point comes in the second sentence of the stimulus. The first sentence serves as background, and the last sentence as support for the main point. We want an answer that best matches the second sentence.

(A) is most related to the first sentence, and the "no" takes it far beyond the information in the text. (C) relates more to the support, and overgeneralizes in saying other companies make a better product. (D) matches the text, but unfortunately that text is the support. (E) jumps to conclusions about the CEO's intentions that the text simply cannot support. (B) could have included some more information, and would have been easier to pick if it did. However, the key is that any right answer has to have the conclusion that matches, in terms of substance, the point that is made in the actual argument, and (B) matches.

CONSTELLATION OF WRONG ANSWERS



Identify the Role

"Which one of the following best represents the role played by the claim that...?"
"The reference to ... plays which one of the following roles in the argument?"

Identify the Role questions represent another way of testing our ability to read for reasoning structure. These questions ask us to correctly identify the role that a certain component plays in an argument. Though the wording might be different, the possible roles are conclusion, support, opposing point, background, and intermediate conclusion (remember that an intermediate conclusion is simply a supporting premise that itself has support). The correct answer is, understandably, most commonly related to the roles most critical to reasoning structure—conclusion and support.

Step one: Understand Your Job: These are very straightforward questions. Avoid looking at the part in question in a "vacuum," for context is what gives a part a specific role. Know that your job is to first understand the passage as a whole, *then* to consider the role that the part in question plays.

Step two: Find the Point & Step three: Find the Support: As we've always done, we want to start by identifying the point and the reasoning used to get there. Understanding the point and the support also makes the assigning of other roles—such as opposing point—a snap. You should have a strong prephrase of the right answer, and remember not to judge the validity of the reasoning in any way.

Step four: Get Rid of Answers: This is the step that makes these questions, on average, a bit easier than other question types—the wrong answers for these questions are very obviously wrong. They will all either clearly misrepresent what is stated in the argument (most commonly by changing the conclusion the author reached) or misrepresent the role. If you have a clear understanding of the argument and role, you can typically recognize four wrong answers very quickly.

Step five: Confirm the Right Answer: For a tougher version of this question, the right answer may not be written in a way that you might expect (maybe, instead of saying that a part in question supports the author's point, it says that the part in question goes against the opposing point), but it will represent the information in the argument correctly, and it will not be inaccurate in terms of what role the part in question plays. Keep to these guidelines, and almost all such questions are very straightforward.

What Is the Reasoning Structure?

"The argument proceeds by"
"X's argument does which of the following?"

Method of Reasoning questions are quite rare, appearing about once every two exams. They ask us most directly about the key issue we've been focusing on—the reasoning structure of the argument.

Step one: Understand Your Job: These are also very straightforward questions. Read the stimulus as you always have, and remember not to judge the validity of what you read.

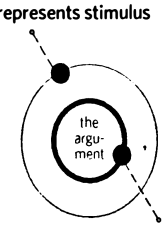
Step two: Find the Point & Step three: Find the Support: Again, same as we always have. Use your understanding of point and support to consider what other parts act as opposing points or background. Keep the specific relationship between conclusion and support ("The author says X, and his reason is Y") in your head as you go into the answer choices. This is your prephrase.

Step four: Get Rid of Answers: These answers are a bit more challenging to deal with than those that accompany Identify the Role questions, but the criteria for eliminating wrong choices is pretty much the same, and just as black and white: get rid of choices that misrepresent the information in the passage, or misrepresent the argument structure. Every wrong answer will have a clear issue in at least one of these areas.

Step five: Confirm the Right Answer: Again, for the tougher version of this question, what will happen is that the right answer will represent the argument structure in a circular way, or in a way that you didn't expect. Check to make sure that the information in the answer—i.e., the subjects and actions discussed—are indeed a correct match for the information in the stimulus, and if you can't say that the representation of the reasoning structure is *wrong*, and if you've correctly gotten rid of the wrong choices, it will be the correct answer.

CONSTELLATION OF WRONG ANSWERS

misrepresents stimulus



assigns the wrong role

TRUNCATED SUPER-SIMPLE EXAMPLES

My mom says I shouldn't watch television. But the television makes me laugh, so I want to watch it.

1. Which of the following best represents the role that "the television makes me laugh" plays in the argument?

(A)It supports the conclusion that he should be allowed to watch television whenever he wants.
(B) It is used to justify his desire to view it.
(C) It is the point the author is attempting to make.

2. The argument proceeds by

(A) stating a position, and giving reasons why that position will lead to negative consequences
(B) stating a position, then giving reasoning that leads to a second position that may stand in opposition to the first
(C) showing a chain of consequences that leads to an inevitable result

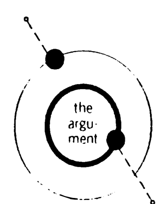
1. (B) is correct. (A) misrepresents the conclusion, and (C) the role.

2. (B) is correct. (A) misrepresents the information in the argument, and (C) the reasoning structure.

**Note that obviously no real LSAT questions will have just three answers, and in recent years, no stimulus has been used for two questions.*

CONSTELLATION OF WRONG ANSWERS

misrepresents information in stimulus



misrepresents argument structure

the process in action

Let's model the problem-solving process with four argument structure questions. I recommend you solve the questions first on your own before looking at the steps.

2.10. Double-blind techniques should be used whenever possible in scientific experiments. They help prevent the misinterpretations that often arise due to expectations and opinions that scientists already hold, and clearly scientists should be extremely diligent in trying to avoid such misinterpretations.

Which one of the following most accurately expresses the main conclusion of the argument?

(A) Scientists' objectivity may be impeded by interpreting experimental evidence on the basis of expectations and opinions that they already hold.
(B) It is advisable for scientists to use double-blind techniques in as high a proportion of their experiments as they can.
(C) Scientists sometimes neglect to adequately consider the risk of misinterpreting evidence on the basis of prior expectations and opinions.
(D) Whenever possible, scientists should refrain from interpreting evidence on the basis of previously formed expectations and convictions.
(E) Double-blind experimental techniques are often an effective way of ensuring scientific objectivity.

1. understand your job: Our job is to identify the conclusion that is in the argument. We want to make sure not to judge the argument in any way.

2. find the point: The first sentence is a great candidate to be the main point, and the rest of what follows seems to support it. We want to go into the answers knowing that the right answer should be, in terms of substance, nearly identical to that first sentence.

3. find the support: The support helps confirm the argument structure and thus the conclusion. Here, we see that the first part of the second sentence is meant to help support the main point, and the second part of the second sentence is meant to add significance to that support.

4. get rid of answers: (A) relates to the support, let's leave (B), (C) makes some assumptions and relates closest to the support, (D) relates to the support in the second sentence, and (E) relates closest to the support in the second sentence. None of the incorrect answers relate to the conclusion we found in the argument, and all four can be eliminated quickly.

5. confirm the right answer: (B) is the only answer remaining—if we check each part of it against the conclusion we identified in the argument, it's fairly clear to see that they have just reworded each part ("should" = "advisable," "whenever possible" = "as high a proportion as they can") but that the meaning is very similar.

3.12. Novel X and Novel Y are both semiautobiographical novels and contain many very similar themes and situations, which might lead one to suspect plagiarism on the part of one of the authors. However, it is more likely that the similarity of themes and situations in the two novels is merely coincidental, since both authors are from very similar backgrounds and have led similar lives.

Which one of the following most accurately expresses the conclusion drawn in the argument?

(A) Novel X and Novel Y are both semiautobiographical novels, and the two novels contain many very similar themes and situations.
(B) The fact that Novel X and Novel Y are both semiautobiographical novels and contain many very similar themes and situations might lead one to suspect plagiarism on the part of one of the authors.
(C) The author of Novel X and the author of Novel Y are from very similar backgrounds and have led very similar lives.
(D) It is less likely that one of the authors of Novel X or Novel Y is guilty of plagiarism than that the similarity of themes and situations in the two novels is merely coincidental.
(E) If the authors of Novel X and Novel Y are from very similar backgrounds and have led similar lives, suspicions that either of the authors plagiarized are very likely to be unwarranted.

1. understand your job: Our job is to identify the conclusion that is in the argument.

2. find the point: The "might lead one to suspect" in the first sentence is wording that indicates we're being given an opinion the author will disagree with in his conclusion. The author's point follows "however" in the second sentence. We know to look for an answer that says that similarities are coincidental.

3. find the support: The support follows "since" in the second sentence. The argument is set up with background, opinion, author's contrasting opinion, and support for that opinion.

4. get rid of answers: (A) relates to the background, (B) relates to the opposing point, (C) relates to the support, (D) matches what we expected and we should leave it, and the "if" in (E) does not match the structure of the argument (the argument has no such conditional).

5. confirm the right answer: (D) starts with the opposing opinion, then gives us the main point of the argument. Notice that saying plagiarism is "less likely" than coincidence is akin to saying coincidence is "more likely" than plagiarism.

Note: For this swatch of lessons, all questions that are used in "the process in action" pages are, unless otherwise noted, from the June '07 Exam.

the process in action

2.11. It is now a common complaint that the electronic media have corroded the intellectual skills required and fostered by the literary media. But several centuries ago the complaint was that certain intellectual skills, such as the powerful memory and extemporaneous eloquence that were intrinsic to oral culture, were being destroyed by the spread of literacy. So, what awaits us is probably a mere alteration of the human mind rather than its devolution.

The reference to the complaint of several centuries ago that powerful memory and extemporaneous eloquence were being destroyed plays which one of the following roles in the argument?

(A) evidence supporting the claim that the intellectual skills fostered by the literary media are being destroyed by the electronic media
(B) an illustration of the general hypothesis being advanced that intellectual abilities are inseparable from the means by which people communicate
(C) an example of a cultural change that did not necessarily have a detrimental effect on the human mind overall
(D) evidence that the claim that the intellectual skills required and fostered by the literary media are being lost is unwarranted
(E) possible evidence, mentioned and then dismissed, that might be cited by supporters of the hypothesis being criticized

1. understand your job: The question stem sounds complicated, but our task is very simple—we just need to find out what role a part of the argument plays.

2. find the point: The author's point comes in the final sentence, following "so." This argument has a very common structure: an opinion, information that goes against that opinion, then the author's main point.

3. find the support: The support for the conclusion comes in the previous sentence, and that sentence happens to be the one in question. We can go into the answers expecting that the right answer will likely be about the portion in question supporting the main point in the third sentence.

4. get rid of answers: (A) gets the relationships mixed up and has the part in question supporting the wrong point, (B) goes well beyond the scope of the argument, (C) seems a bit general but let's leave it, (D) isn't what is expected, but also seems to be somewhat accurate, so let's leave it. (E), like (A), aligns the support with the wrong conclusion. We can get rid of (A), (B), and (E) quickly.

5. confirm the right answer: Let's take a careful look at (C)—it's not what we expected, and it's not as specific as it can be, but it has no absolute flaws. The second sentence is being used as an example of this point, and "did not necessarily have a detrimental effect" is a good match for "mere alternation...rather than its devolution." A careful look at (D) reveals problems that aren't obvious at first—the author is not necessarily disagreeing in his conclusion with the point that electronic media is having this impact; what he is disagreeing with is the fact that this is something that should be criticized. The second sentence does not serve to show that changes are not happening; it serves to show that the changes are not necessarily bad. (C) is correct.

3.20. Gamba: Muñoz claims that the Southwest Hopeville Neighbors Association overwhelmingly opposes the new water system, citing this as evidence of citywide opposition. The association did pass a resolution opposing the new water system, but only 25 of 350 members voted, with 10 in favor of the system. Furthermore, the 15 opposing votes represent far less than 1 percent of Hopeville's population. One should not assume that so few votes represent the view of the majority of Hopeville's residents.

Of the following, which one most accurately describes Gamba's strategy of argumentation?

(A) questioning a conclusion based on the results of a vote, on the grounds that people with certain views are more likely to vote
(B) questioning a claim supported by statistical data by arguing that statistical data can be manipulated to support whatever view the interpreter wants to support
(C) attempting to refute an argument by showing that, contrary to what has been claimed, the truth of the premises does not guarantee the truth of the conclusion
(D) criticizing a view on the grounds that the view is based on evidence that is in principle impossible to disconfirm
(E) attempting to cast doubt on a conclusion by claiming that the statistical sample on which the conclusion is based is too small to be dependable

1. understand your job: Our job is to understand the reasoning structure of the argument. The most important part of that is the relationship between the support and the point.

2. find the point: The author's point comes in the last sentence—the votes are not a definite representation of the view of the residents. The structure of the passage is a common one—an opinion, evidence against that opinion, and the author's opposing point.

3. find the support: The support comes in the second and third sentences. These sentences are intended to show how unrepresentative the vote actually was. We want to keep this in mind as we go to the next step.

4. get rid of answers: "Questioning a conclusion" in (A) sounds good, but the rest of (A) has little to do with the given argument. (B) is not what is actually stated in the argument ("manipulated to support whatever" has no relation to anything we are given). (C) sounds somewhat tempting, so let's keep it. (D) goes beyond the argument ("impossible to disconfirm"). (E) is a great match for what we saw initially in the argument and expected in the answer. Let's get rid of (A), (B), and (D) and look again at (C) and (E).

5. confirm the right answer: (C) seems fairly close, but the original claim was not about truth in premises "guaranteeing" a truth in the conclusion, but rather the opinions of one group being used as evidence for general opinion. (E) has no such suspicious components, and another careful review of (E) confirms that it is the correct answer. The author is casting doubt on the original opinion, and the purpose of his evidence is to show the limited size of the sample set.

Reasoning Structure Questions

31.3.14. Ethicist: Both ASA and TPA are clot-dissolving agents. Recent studies show that the more expensive agent, TPA, would save at most two more lives than would ASA out of every 50 cardiac patients to whom they are postoperatively administered. However, since the relatives of the patients who die simply because they were given the less expensive medicine would be particularly grieved, the financial saving involved in using ASA over TPA must also be weighed against such considerations.

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

(A) ASA should never be given to postoperative cardiac patients in place of TPA.
(B) TPA is a slightly more effective clot-dissolving agent than ASA.
(C) The extra expense of TPA cannot be weighed simply against the few additional lives saved.
(D) ASA is a less expensive clot-dissolving agent than TPA.
(E) Relatives of a patient who has died grieve more if the patient received ASA rather than TPA.

30.4.2. The current theory about earthquakes holds that they are caused by adjoining plates of rock sliding past each other; the plates are pressed together until powerful forces overcome the resistance. As plausible as this may sound, at least one thing remains mysterious on this theory. The overcoming of such resistance should create enormous amounts of heat. But so far no increases in temperature unrelated to weather have been detected following earthquakes.

Which one of the following most accurately expresses the main point of the argument?

(A) No increases in temperature have been detected following earthquakes.
(B) The current theory does not fully explain earthquake data.
(C) No one will ever be sure what the true cause of earthquakes is.
(D) Earthquakes produce enormous amounts of heat that have so far gone undetected.
(E) Contrary to the current theory, earthquakes are not caused by adjoining plates of rock sliding past one another.

Stick to the steps!
1. understand your job
2. find the point
3. find the support
4. get rid of answers
5. confirm the right answer

30.4.13. Joseph: My encyclopedia says that the mathematician Pierre de Fermat died in 1665 without leaving behind any written proof for a theorem that he claimed nonetheless to have proved. Probably this alleged theorem simply cannot be proved, since—as the article points out—no one else has been able to prove it. Therefore it is likely that Fermat was either lying or else mistaken when he made his claim.

Laura: Your encyclopedia is out of date. Recently someone has in fact proved Fermat's theorem. And since the theorem is provable, your claim—that Fermat was lying or mistaken—clearly is wrong.

13. Joseph's statement that "this alleged theorem simply cannot be proved" plays which one of the following roles in his argument?

(A) an assumption for which no support is offered
(B) a subsidiary conclusion on which his argument's main conclusion is based
(C) a potential objection that his argument anticipates and attempts to answer before it is raised
(D) the principal claim that his argument is structured to refute
(E) background information that neither supports nor undermines his argument's conclusion

29.1.12. It is well known that many species adapt to their environment, but it is usually assumed that only the most highly evolved species alter their environment in ways that aid their own survival. However, this characteristic is actually quite common. Certain species of plankton, for example, generate a gas that is converted in the atmosphere into particles of sulfate. These particles cause water vapor to condense, thus forming clouds. Indeed, the formation of clouds over the ocean largely depends on the presence of these particles. More cloud cover means more sunlight is reflected, and so the Earth absorbs less heat. Thus plankton cause the surface of the Earth to be cooler and this benefits the plankton.

Which one of the following accurately describes the argumentative strategy employed?

(A) A general principle is used to justify a claim made about a particular case to which that principle has been shown to apply.
(B) An explanation of how a controversial phenomenon could have come about is given in order to support the claim that this phenomenon did in fact come about.
(C) A generalization about the conditions under which a certain process can occur is advanced on the basis of an examination of certain cases in which that process did occur.
(D) A counterexample to a position being challenged is presented in order to show that this position is incorrect.
(E) A detailed example is used to illustrate the advantage of one strategy over another

Reasoning Structure Solutions

31.3.14. Ethicist: Both ASA and TPA are clot-dissolving agents. Recent studies show that the more expensive agent, TPA, would save at most two more lives than would ASA out of every 50 cardiac patients to whom they are postoperatively administered. However, since the relatives of the patients who die simply because they were given the less expensive medicine would be particularly grieved, the financial saving involved in using ASA over TPA must also be weighed against such considerations.

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

(A) ASA should never be given to postoperative cardiac patients in place of TPA.
(B) TPA is a slightly more effective clot-dissolving agent than ASA.
(C) The extra expense of TPA cannot be weighed simply against the few additional lives saved.
(D) ASA is a less expensive clot-dissolving agent than TPA.
(E) Relatives of a patient who has died grieve more if the patient received ASA rather than TPA.

1. understand your job: Our job is to find the main point.

2. find the point: The first two sentences are background. The "however," which is a bit awkward and confusing, hints at the argument to come; "since" gives us the support; and then the last point, "the financial savings...must also be weighed..." is the conclusion.

3. find the support: The support comes in the "since" phrase in the same sentence as the conclusion. The reasoning is confusing to understand, let alone judge, but thankfully that's not our job here. Since we know the conclusion with certainty, we can move on to the next step.

4. get rid of answers: (A) goes beyond the intent of the argument—"never" is a clear giveaway. (B) relates to the background. (C) is not the answer we expected, but it is related to the main point—the main point is that there is an additional consideration—so let's leave it. (D) is related to the background. (E) relates to the support. We can easily get rid of (A), (B), (D), and (E).

5. confirm the right answer: Here is another instance in which it is far easier to see why wrong answers are wrong than it is to see why the right answer is right. However, to confirm, we can look back through the text, and indeed (C) matches the point well—the first sentence of the argument lays out the situation—one agent is more costly, but more effective. The point is that there is an extra conditional consideration beyond what was in the first sentence. (C) represents that, albeit in a way that we may not have expected.

30.4.2. The current theory about earthquakes holds that they are caused by adjoining plates of rock sliding past each other; the plates are pressed together until powerful forces overcome the resistance. As plausible as this may sound, at least one thing remains mysterious on this theory. The overcoming of such resistance should create enormous amounts of heat. But so far no increases in temperature unrelated to weather have been detected following earthquakes.

Which one of the following most accurately expresses the main point of the argument?

(A) No increases in temperature have been detected following earthquakes.
(B) The current theory does not fully explain earthquake data.
(C) No one will ever be sure what the true cause of earthquakes is.
(D) Earthquakes produce enormous amounts of heat that have so far gone undetected.
(E) Contrary to the current theory, earthquakes are not caused by adjoining plates of rock sliding past one another.

1. understand your job: Our job is to find the main point.

2. find the point: The author's point is that there is a mystery yet to be answered by the theory. Specifically, there should be heat, but there isn't.

3. find the support: This is an unusual argument in that the support is built into the main point—there isn't heat.

4. get rid of answers: (A) discusses the support—the facts behind the point—but doesn't represent the point well. (B) seems to represent the main point in a roundabout way ("at least one thing remains a mystery" = "does not fully explain") so let's keep it. (C) goes well beyond the scope of the argument. (D) mixes together the background and the point, and adds in some assumptions for good measure. (E) goes too far—the author does not say the theory is wrong.

5. confirm the right answer: Once again, we are left with just one answer after our eliminations. We look at (B) once again, check it against the text, and go ahead and select it.

Reasoning Structure Solutions

30.4.13. Joseph: My encyclopedia says that the mathematician Pierre de Fermat died in 1665 without leaving behind any written proof for a theorem that he claimed nonetheless to have proved. Probably this alleged theorem simply cannot be proved, since—as the article points out—no one else has been able to prove it. Therefore it is likely that Fermat was either lying or else mistaken when he made his claim.

Laura: Your encyclopedia is out of date. Recently someone has in fact proved Fermat's theorem. And since the theorem is provable, your claim—that Fermat was lying or mistaken—clearly is wrong.

13. Joseph's statement that "this alleged theorem simply cannot be proved" plays which one of the following roles in his argument?

(A) an assumption for which no support is offered
(B) a subsidiary conclusion on which his argument's main conclusion is based
(C) a potential objection that his argument anticipates and attempts to answer before it is raised
(D) the principal claim that his argument is structured to refute
(E) background information that neither supports nor undermines his argument's conclusion

1. understand your job: Our job is to understand the role that the statement in question plays. We'll do this by understanding the reasoning structure of the argument.

2. find the point: At first, the line in question ("this alleged...") seems like it is the main point, especially considering that what follows it is support. However, the last line gives us an ultimate, or final, main point—Fermat was either lying or else mistaken.

3. find the support: The portion in question is what ultimately leads us to the final point. The portion in question is also, itself, supported (by the statement that begins "since—"). With a clear understanding of the reasoning structure, and a clear understanding of the role the part in question plays, we can easily start eliminating wrong answers.

4. get rid of answers: (A) is incorrect, since it is a statement that does have support. (B) seems correct, so let's leave it for now. (C) misrepresents the role in the argument—the statement is not an objection. (D) also misrepresents the role; he uses the piece to support his conclusion—it is not something he tries to refute. (E) is incorrect—since the final sentence starts "therefore," we know for sure that the part in question is being used as support for the final conclusion.

5. confirm the right answer: Once again we are left with just one attractive answer. We know that the part in question is being used to support the main conclusion, and is itself being supported by other evidence. Remember that a subsidiary, or intermediate, conclusion is simply a supporting premise that itself has support, and the part in question certainly fits the bill. (B) is correct.

29.1.12. It is well known that many species adapt to their environment, but it is usually assumed that only the most highly evolved species alter their environment in ways that aid their own survival. However, this characteristic is actually quite common. Certain species of plankton, for example, generate a gas that is converted in the atmosphere into particles of sulfate. These particles cause water vapor to condense, thus forming clouds. Indeed, the formation of clouds over the ocean largely depends on the presence of these particles. More cloud cover means more sunlight is reflected, and so the Earth absorbs less heat. Thus plankton cause the surface of the Earth to be cooler and this benefits the plankton.

Which one of the following accurately describes the argumentative strategy employed?

(A) A general principle is used to justify a claim made about a particular case to which that principle has been shown to apply.
(B) An explanation of how a controversial phenomenon could have come about is given in order to support the claim that this phenomenon did in fact come about.
(C) A generalization about the conditions under which a certain process can occur is advanced on the basis of an examination of certain cases in which that process did occur.
(D) A counterexample to a position being challenged is presented in order to show that this position is incorrect.
(E) A detailed example is used to illustrate the advantage of one strategy over another.

1. understand your job: Our job is to understand the reasoning structure.

2. find the point: The main point is well-hidden in the middle of the text: "however, this characteristic is actually quite common."

3. find the support: It's easy to assume that the main point is about plankton, but the plankton discussion is used as support. If you aren't sure, you can use the "therefore" test: "plankton cause the surface of the earth... and therefore altering environment is a common thing" (yes), "altering environment is a common thing, therefore plankton cause earth's surface..." (no). Thus, the plankton is meant to support the general statement, and not the other way around.

The argument is more complex than most, but the general structure is a common one—a general assumption is stated, a contrasting opinion is presented, and then support is given for that opinion. With that understanding, let's go hunting for wrong answers.

4. get rid of answers: (A) gets the conclusion-support relationship reversed (as we'd expect wrong answers to do here). The "controversial phenomenon" in (B) is not directly related to this argument. (C) seems okay—let's leave it. (D) seems okay too, so let's leave it. "The advantage of one strategy over another" mentioned in (E) has no direct relation to the argument. We can eliminate (A), (B), and (E) quickly.

5. confirm the right answer: Let's look at (C) and (D) more carefully. A lot of (C) matches what we are looking for—"a generalization," "is advanced...on the basis of...certain cases" all sounds good. However, "the conditions under which certain processes occur," does not match our text—our argument is about species, not conditions. We can eliminate (C). (D) is the correct answer. The author's main point challenges a position, and so the support for the author's point acts as a counterexample to the position being challenged.

Match the Reasoning

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

Whereas the other question types that we've discussed in this lesson thus far fall, on average, on the easier end of the difficulty spectrum, Match the Reasoning questions are typically pretty tough. They require us to do a significant amount of work in both the stimulus and the answer choices, so allow yourself a bit of extra time when you see this type of question—20 extra seconds or so—and be happy when you don't need it. Success requires that you consistently recognize basic reasoning structure quickly and accurately, and, perhaps most importantly, that you maintain a high level of mental discipline.

step one: understand your job

Matching questions require you to figure out which two arguments are most alike. The first part of the challenge is to gain as specific an understanding of the fixed target—the initial argument—as possible. Without this, the task of wading through the answers becomes monumentally more difficult. The next part of your job is to find reasons why four answers do not make good matches. If you've done this well, most of the time there will be just one attractive match standing. Your final step is to compare conclusions, support, and reasoning relationships to make sure the match is strong.

step two: find the point

This is the same as for every other question we've dealt with, so I won't say much. Keep in mind that understanding the specific reasoning relationship in the argument is going to be critical to eliminating answers, which, because of the advanced nature of these questions, will commonly have differences that are somewhat subtle—so try to understand the specifics of the conclusion the best you can. Allow yourself to go more slowly than you normally do, or to give yourself an extra read of the conclusion, as needed.

step three: find the support

Once you have the conclusion you need to relate the support to that conclusion. Understanding this relationship in a specific way will be critical to eliminating wrong choices. Match the Reasoning questions will often have compound reasoning structures—two premises that add to a conclusion, or one point that leads to another that leads to another. Again, take the time to understand this initial relationship carefully and correctly. Quickly take note of any opposing points or background.

step four: get rid of answers

Ultimately, how well you perform in this step will determine whether a question feels easy or difficult, and how well you performed steps two and three will typically determine your success in this step.

As always, keep in mind that wrong answers will have clear markers that tip us off that they are incorrect. For matching questions, we cannot use subject matter to eliminate answers—we must solely rely on our understanding of reasoning structure—wrong answers will all be wrong for one general reason: they do not have the same reasoning structure as the original argument.

A common way we'll recognize this is that the answer reaches a different type of conclusion—maybe the original reached a causal conclusion, and an answer choice has a conditional conclusion—and the other common way in which we'll recognize this is that the relationship between support and conclusion will be very different—perhaps in the original argument there is a conditional relationship, and in an answer choice there is a comparative one.

step five: confirm the right answer

If you've performed steps one through four correctly, you should expect, most of the time, to get down to just one, or sometimes two, answers to confirm. Start by making sure that the points made in the conclusions are similar, then check the match between support and conclusion. Lastly, look for any "stray," but limiting or essential components that show up in the argument; or (most commonly) the answer choice that, for whatever reason, changes the reasoning relationship enough to cause a mismatch.

SIMPLE EXAMPLE

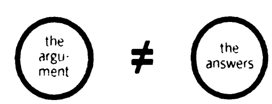
Every day, Janice either rides her bike or goes to the gym. When she goes to the gym, she always wears a hat. Since Janice is not going to bike today, she will wear a hat and go the the gym.

Which of the following arguments is most similar to the reasoning in the argument above?

(A) Most people prefer warm weather but some prefer cold. Since Ted likes cold weather, he is in the minority.
(B) Anyone with a badge can get access, and anyone who can get access can get free sodas. Since John has a badge, he can get a free soda.
(C) Barry can either take a job as an accountant or as a project manager. Since he doesn't like being an accountant, he should become a project manager.
(D) Whenever Ted watches television he drinks soda. Since he either watches television or makes dinner every night, and since he didn't make dinner tonight, he must have drank soda.
(E) The alarm was set off last night. Joe and Stan were the only two who were at the location. So, one of them must have set it off.

The correct answer is (D). The original argument had two premises that link: either she rides her bike or goes to the gym, and if she goes to the gym out she wears a hat. The conclusion tells us she did not ride her bike, and so therefore she wore a hat. What we have is a conclusion that links an either/or linked to a conditional in order to say she will definitely do something. We want to knock off answers that have different reasoning structure, and you can often tell that because they reach a different type of conclusion or use different types of premises. (A) and (C) have different types of conclusions from our original (notice the "should" in (C)), (B) lacks the either/or, and (E) lacks both the either/or and the conditional. That leaves (D), which presents information in a different order from the original, but nonetheless matches the structure—support with an either/or connected to a conditional, and a definite conclusion.

WRONG ANSWERS ARE MISMATCHES



mismatching conclusions

mismatching support

mismatching reasoning

the process in action

2.12. Suppose I have promised to keep a confidence and someone asks me a question that I cannot answer truthfully without thereby breaking the promise. Obviously, I cannot both keep and break the same promise. Therefore, one cannot be obliged both to answer all questions truthfully and to keep all promises.

Which one of the following arguments is most similar in its reasoning to the argument above?

(A) It is claimed that we have the unencumbered right to say whatever we want. It is also claimed that we have the obligation to be civil to others. But civility requires that we not always say what we want. So, it cannot be true both that we have the unencumbered right to say whatever we want and that we have the duty to be civil.
(B) Some politicians could attain popularity with voters only by making extravagant promises; this, however, would deceive the people. So, since the only way for some politicians to be popular is to deceive, and any politician needs to be popular, it follows that some politicians must deceive.
(C) If we put a lot of effort into making this report look good, the client might think we did so because we believed our proposal would not stand on its own merits. On the other hand, if we do not try to make the report look good, the client might think we are not serious about her business. So, whatever we do, we risk her criticism.
(D) If creditors have legitimate claims against a business and the business has the resources to pay those debts, then the business is obliged to pay them. Also, if a business has obligations to pay debts, then a court will force it to pay them. But the courts did not force this business to pay its debts, so either the creditors did not have legitimate claims or the business did not have sufficient resources.
(E) If we extend our business hours, we will either have to hire new employees or have existing employees work overtime. But both new employees and additional overtime would dramatically increase our labor costs. We cannot afford to increase labor costs, so we will have to keep our business hours as they stand.

1. understand your job: Since this is a Match the Reasoning question, we want to start by recognizing the reasoning structure of the argument.

2. find the point: The conclusion comes in the last line—one cannot be obliged to do two things at once—honestly answer questions and keep secrets.

3. find the support: The support is the sentence before, which shows that, in a certain situation, it is impossible to do those two things at once.

4. get rid of answers: The original argument had a premise which showed two things can't happen at the same time, and a conclusion that one shouldn't thus be obligated to do both at the same time. We want to eliminate answers with obviously different points or reasoning structures. (A) has two things that can't happen at once, so let's leave it. (B) reaches a conclusion about one action some people *must* take, and so can be eliminated quickly. (C) discusses two possible actions, and a general outcome from both those actions. This is not similar to our original argument. The conclusion of (D) is somewhat similar to the original argument, but note the "chain" of premises in (D)—that's very different from the original. And whereas the original argument is about two things that can't be true at once, this conclusion is about two possible outcomes. That's enough to knock out (D). (E) is about making a decision and can be eliminated quickly.

5. confirm the right answer: Though (D) was somewhat attractive, (A) is the only answer that made it through our elimination process. "Right" and "obligation" are different ideas, but in other ways (A) matches the argument very well—the conclusion is about the challenge of doing two things at once, and the support is an example of a situation in which these two things cannot go together. This is what we were looking for.

30.2.14. It is inaccurate to say that a diet high in refined sugar cannot cause adult-onset diabetes, since a diet high in refined sugar can make a person overweight, and being overweight can predispose a person to adult-onset diabetes.

The argument is most parallel, in its logical structure, to which one of the following?

(A) It is inaccurate to say that being in cold air can cause a person to catch a cold, since colds are caused by viruses, and viruses flourish in warm, crowded places.
(B) It is accurate to say that no airline flies from Halifax to Washington. No airline offers a direct flight, although some airlines have flights from Halifax to Boston and others have flights from Boston to Washington.
(C) It is correct to say that overfertilization is the primary cause of law disease, since fertilizer causes law grass to grow rapidly and rapidly growing grass has little resistance to disease.
(D) It is incorrect to say that inferior motor oil cannot cause a car to get poorer gasoline mileage, since inferior motor oil can cause engine valve deterioration, and engine valve deterioration can lead to poorer gasoline mileage.
(E) It is inaccurate to say that Alexander the Great was a student of Plato; Alexander was a student of Aristotle and Aristotle was a student of Plato.

1. understand your job: Since we need to match reasoning, we want to start by recognizing the reasoning structure of the argument.

2. find the point: The point comes in the first line—"It is inaccurate to say that a diet high in refined sugar cannot cause adult-onset diabetes."

3. find the support: Everything that follows is support, and this support "chains" together—sugar diet can make one overweight, and being overweight can increase chances of getting adult-onset diabetes.

4. get rid of answers: We're looking for an answer that proves a statement "inaccurate," and we are looking for support that links up. Let's get rid of answers that obviously don't fit the bill. (A) sounds very good until the very end, when it talks about warm, crowded places—since the conclusion was about cold air, there is a premise-conclusion jump that makes (A) very different from the original argument. (B) reaches a similar conclusion, but by using different support (by showing "exceptions," rather than by linking ideas). (C) reaches a positive, rather than negative conclusion, but otherwise is quite similar (with the linking support). Let's leave it. (D) is pretty much exactly what we were looking for, so let's leave it. (E) also looks good! We've got three to inspect carefully.

5. confirm the right answer: Looking carefully at (C)—"correct" and "primary" allow us to eliminate it, for those words make the conclusion very different from ours. (D) has exactly the same components as our original and seems correct. Looking carefully at (E), the conclusion is that "it is inaccurate to say X is Y," whereas the original was "it is inaccurate to *(continued on next page)*

Match the Reasoning Questions

31.2.23. Town councillor: The only reason for the town to have ordinances restricting where skateboarding can be done would be to protect children from danger. Skateboarding in the town's River Park is undoubtedly dangerous, but we should not pass an ordinance prohibiting it. If children cannot skateboard in the park, they will most certainly skateboard in the streets. And skateboarding in the streets is more dangerous than skateboarding in the park.

The pattern of reasoning in which one of the following is most similar to that in the town councillor's argument?

(A) The reason for requiring environmental reviews is to ensure that projected developments do not harm the natural environment. Currently, environmental concerns are less compelling than economic concerns, but in the long run, the environment must be protected. Therefore, the requirement for environmental reviews should not be waived.
(B) Insecticides are designed to protect crops against insect damage. Aphids damage tomato crops, but using insecticides against aphids kills wasps that prey on insecticide-resistant pests. Since aphids damage tomato crops less than the insecticide-resistant pests do, insecticides should not be used against aphids on tomato crops.
(C) The purpose of compulsory vaccination for schoolchildren was to protect both the children themselves and others in the community against smallpox. Smallpox was indeed a dreadful disease, but it has now been eliminated from the world's population. So children should not be vaccinated against it.
(D) The function of a sealer on wood siding is to retard deterioration caused by weather. However, cedar is a wood that is naturally resistant to weather-related damage and thus does not need additional protection. Sealers, therefore, should not be applied to cedar siding.
(E) Traffic patterns that involve one-way streets are meant to accelerate the flow of traffic in otherwise congested areas. However, it would be detrimental to the South Main Street area to have traffic move faster. So traffic patterns involving one-way streets should not be implemented there.

31.3.18. It is impossible to do science without measuring. It is impossible to measure without having first selected units of measurement. Hence, science is arbitrary, since the selection of a unit of measurement—kilometer, mile, fathom, etc.—is always arbitrary.

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

(A) Long hours of practice are necessary for developing musical skill. One must develop one's musical skill in order to perform difficult music. But long hours of practice are tedious. So performing difficult music is tedious.
(B) You have to advertise to run an expanding business, but advertising is expensive. Hence, it is expensive to run a business.
(C) It is permissible to sit on the park benches. To sit on the park benches one must walk to them. One way to walk to them is by walking on the grass. So it is permissible to walk on the grass.
(D) It is impossible to be a manager without evaluating people. The process of evaluation is necessarily subjective. Thus, people resent managers because they resent being evaluated subjectively.
(E) Some farming on the plains requires irrigation. This irrigation now uses water pumped from aquifers. But aquifers have limited capacity and continued pumping will eventually exhaust them. Thus, a new source of water will have to be found in order for such farming to continue indefinitely.

Stick to the steps!
1. understand your job
2. find the point
3. find the support
4. figure out what's wrong
5. get rid of answers
6. confirm the right answer

(30.2.14 solution continued) say X cannot be Y." These different conclusions turn out to have different support. The support in (E) is meant to show that Alexander was not (definitive) a student of Plato; the support in the original argument is meant to show that a diet high in refined sugar can (less definitive) cause adult-onset diabetes. (E) is not an ideal match, and (D) is correct.

Match the Reasoning Solutions

For 31.2.23.

1. understand your job: Our job is to match reasoning, so we want to start by understanding the reasoning structure of the argument.

2. find the point: It comes in the middle: we should not pass an ordinance prohibiting skateboarding in the park.

3. find the support: The support comes after the conclusion, but it combines with the background to justify the main point: the only reason for prohibiting it is safety, and it would be more dangerous if children skated elsewhere.

4. get rid of answers: The point is that they shouldn't pass the ordinance because instead of adding to safety, it would add more danger. Let's knock off answers with a very different structure. (A) discusses not getting rid of a law because of the usefulness of a law. This is the opposite of our original argument. (B) is more complicated than the original, but seems somewhat like it—let's leave it. (C) talks about how something used to be necessary, but now no longer is. Very different from our original argument. (D) is about something being unnecessary (rather than making things worse). (E) is about how one action shouldn't be taken, because its intended consequence (accelerating traffic) isn't a consequence that is wanted. We can get rid of (E) quickly.

5. confirm the right answer: (B) didn't look great at first, but it's the only remaining answer. Let's evaluate it more carefully. The conclusion is not to do something. The reasoning: the actual result (doing more harm to crops) would be the opposite of the intended result (preventing more harm to crops). This matches our original argument quite well, and (B) is correct.

For 31.3.18.

1. understand your job: Our job is to match the reasoning, so we want to start by understanding the reasoning structure of the original argument.

2. find the point: It follows "Hence"—science is arbitrary.

3. find the support: The main support follows the conclusion—science is arbitrary because the selection of measurements is arbitrary. We learned earlier that it is impossible to do science without measurements. (Note that this is an obviously flawed argument, but it's not our job to focus on that here).

4. get rid of answers: We want to find an answer that ascribes a characteristic (like arbitrary) to a larger entity (science) because it is a characteristic of something (measurements) necessary to that larger entity. Let's knock off obviously wrong choices. (A) has a different order, but somewhat similar argument structure, so let's leave it. (B) is somewhat tempting, but if you notice the difference between "expanding business" and "business" you can quickly knock it off. (C) says since one thing is allowed, another thing should be allowed. This is not the same as our argument. (D) adds "resentment" into the conclusion when resentment isn't related to the background. (E) gives us a very different argument—one way of doing something is no longer going to work, so a new method will need to be found.

5. confirm the right answer: (A) didn't look great initially, but it's our only remaining answer—let's review it carefully. (A) ascribes a characteristic (tedious) to a larger entity (performing difficult music) because it is a characteristic of something (practice) necessary for that larger entity. That's what we were looking for, and (A) is the correct answer.

How Did You Do?

This was a full lesson, and the last question type we discussed was clearly the most difficult—hopefully the work you did in this lesson helps set you on a path to success on structure questions, which typically means being able to get through the easier ones quickly, and being able to use a variety of tools to isolate the correct answer for the tough questions.

Just as we did with Logic Games, let's go ahead and discuss the common characteristics of those test takers who don't perform as well on the Logical Reasoning section as they are capable of performing. Of course *you* probably have none of these characteristics, but if you do, it's no big deal; you have plenty of time to address trouble spots.

five common characteristics of underperformers

don't let these descriptions fit you!

1. They don't pay attention to the right things. In my experience, this is absolutely the most significant difference between scorers at different levels. Top scorers think about the right things in each situation—they think about finding the conclusion when that's their primary task, the flaw when that's their primary task, or finding specific reasons why answers are wrong when that's the primary task, and so on. Lower-level scorers either incorrectly choose to focus on the wrong issues, or more commonly, haven't trained themselves to think about specific issues at all, so that they are at the whim of wherever their attention (or "elephant") chooses to wander.

2. They misread or misunderstand and can't recover. The reality is, even top scorers will misread parts of the test. However, top scorers have enough reference points to recognize when they have perhaps misunderstood, and they also have a good sense of when it's really important to understand something specifically (when the information is in the conclusion, for example) and when it's not (when the information is in an answer choice that is wrong for other obvious reasons, for example). Low scorers tend to have fewer checks built in, and they also tend to be more stubborn about sticking to their incorrect understanding, even when the experience of solving the question (none of the answers seem attractive, for example) indicates their understanding might be faulty.

3. They don't fully utilize the question stem. As we've discussed many times, most people go into the exam with a less-than-ideal understanding of the specific tasks that various question stems present—the consequence is that they don't know exactly what to look for in a required assumption question, for example, or exactly what to look out for in incorrect identify the conclusion answers. They end up using somewhat unique, somewhat over-generalized strategies for different types of questions, and this limits them from more easily understanding differences between answer choices, particularly for the most difficult questions.

4. They don't utilize the elimination process. We've also discussed this topic many times, so I won't rehash things too much here. However, it's absolutely true that most average or below-average scorers believe that eliminating wrong answers is some sort of luxury, safety, or secondary strategy. Top scorers understand that it's not only something necessary to maintaining accuracy, it's also something that actually helps make many questions easier and can make the process of solving them much faster.

5. They don't utilize checks and balances. This is related to many of the points that have already been made. Because underperformers waste time focusing on wrong issues, and because they rely on inefficient strategies, they have to "match" questions really well in order to solve them correctly—that is, they have to be able to come up with somewhat lucky thoughts at exactly the right moments, and the questions have to go as planned, or else they have to scramble. Lucky thoughts won't always come and questions won't always go as planned, so top scorers have a variety of checks and balances naturally integrated into their problem-solving process. For example, if you've been able to absorb and integrate the key strategies discussed in this book, the process of finding supporting evidence reinforces the task of identifying the right conclusion, the task of identifying the correct answer is bolstered by the process of eliminating wrong ones, finding the right answer involves not only matching it against the stimulus, but also against the question stem, and so on. Top scorers have multiple tools they can rely on to recognize when they are having issues and to find their way to the correct answer.

31 LSAT Vocabulary

Surprise—this is going to be a very short lesson (though maybe not quite as short as it may first appear). If you've made it this far in the book, you definitely deserve a break. Please, take the rest of the study time that you've allotted to do something fun.

As you are by this point most certainly aware, the LSAT is full of complex and unusual words and phrases. However, as we've discussed many times, when it comes time to answer questions, it is the small, common words *between* those unusual ones—the common words that define reasoning relationships—that are most important. We've been highlighting many of these important reasoning words throughout the book—in this lesson, we're going to take a quick break from Logical Reasoning to have a concentrated lesson just on LSAT vocabulary. And, not so coincidentally, I hope you find the work we do in this lesson helpful as you conquer Inference questions in the next one.

When it comes to mastering LSAT vocabulary, there are two different aspects to consider:

Understanding the Words Correctly

Duh. The good news is that nearly all of the important terms are easy and simple to understand. The bad news is that certain terms are very easy to misunderstand, no matter how much you prepare. Oftentimes, getting a question correct requires that we translate and utilize many different words in a very short amount of time—your understanding of most key terms needs to be absolute and automatic; furthermore, you need to have a good sense of which words tend to cause you trouble, and you want to make sure you have systems for dealing with these terms.

Prioritizing Key Terms

This second issue is of far more importance than the first. These key terms shape reasoning structure and reasoning relationships—the two things LSAT questions happen to be about. Students who perform poorly or who spend far more time than they should, invariably waste energy focusing on the wrong parts of an argument or a passage. The main reason I've put this lesson in is not to remind you of what words mean, but rather to remind you of which words to pay attention to.

I've also included a couple of challenging mini-drills at the end, just for fun.

Logic Games

The key terms for Logic Games are the ones that define the various relationships and complications that we've already discussed: assignment, ordering, grouping, subsets, mismatches, conditional rules, and or rules. Nearly all of the terms used in a typical Logic Games section will be very easy to understand. One key is slowing down and being careful for those few statements (such as "only if") that happen to cause you some trouble. Another key is to keep clear on statements that mean different things but can easily be mistaken for one another ("before" and "no earlier than," for example, are two statements that often mean the same thing, but don't always mean the same thing—such as in a situation that allows for ties).

above

at some time

before
earlier

immediately

one at a time and in order

exactly

ordering terms

below

no two at the same time

no earlier than

later
after

in succession
consecutively
one at a time and in order
no two at the same time
in succession

no later than

Ordering rules are the most common and varied of all games rules, and it's important that you feel comfortable with all of them and that you are exact in your understanding of all of them.

action verbs such as "wears," or "speaks"

is

Assignment and subsets are often recognizable because of action verbs: "John *is* third," "Shannon *wears* a red hat," "Neither of the morning presenters *speaks* Russian."

different

grouping

same
together
neither
both

The number of words that define grouping is fairly limited.

no less than
at least

at most
no more than

numbers

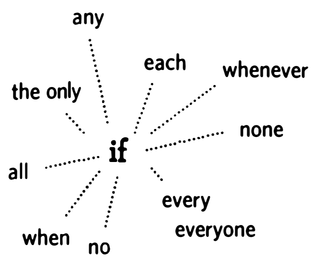
exactly
only

more
greater

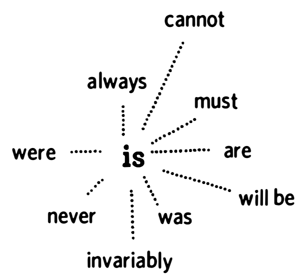
less
fewer

Words that define numbers are always important and easy to mistake and should be treated with utmost care.

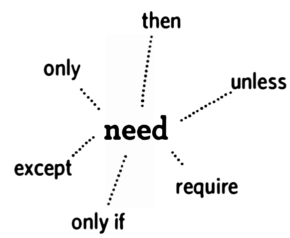
CONDITIONAL TERMS



words that indicate sufficiency

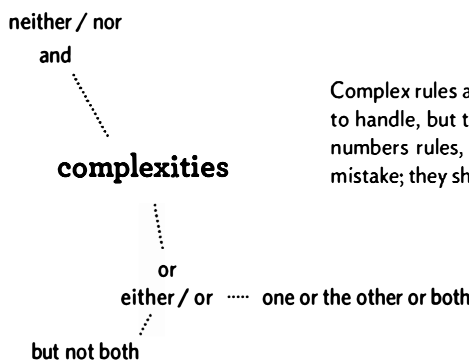


words that indicate guarantees



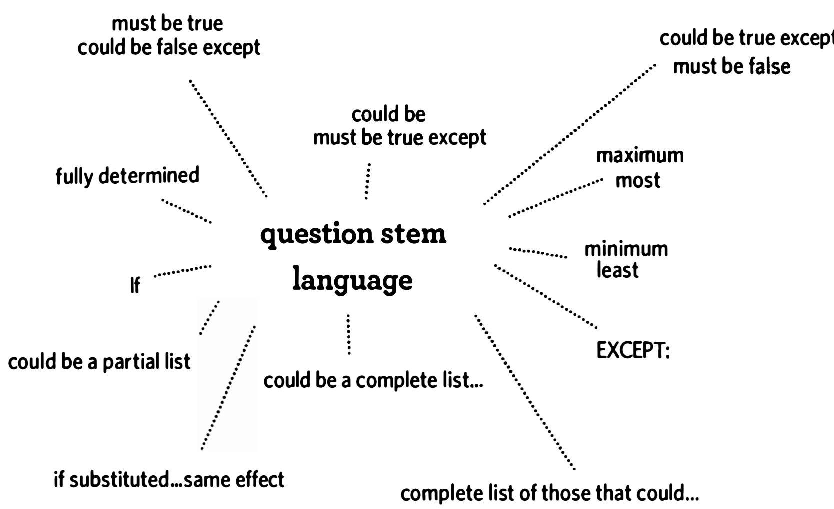
words that indicate a necessary result

And of course, there are always a variety of ways to express conditional rules. Note that a word like "is" can always be thought of conditionally, but it will only be helpful for us to do so in certain situations.



Complex rules are a blessing and a curse—they can be tough to handle, but they always tell us a lot about the game. Like numbers rules, they are always important and very easy to mistake; they should always be handled with the utmost care.

And as we've discussed many times, it's important that we understand the question stem correctly and that we use it to define how we go about solving the question. Expect to spend a bit more time on "if substituted...same effect" questions, and be careful to not confuse "could be a compete list..." with "complete list of those that could..."



Reading Comprehension

As you might imagine, the Reading Comprehension section is not as dependent on consistent and exact terminology as the Logic Games section is. For example, there are numerous ways for an author to present his or her opinion. For Reading Comprehension, specific terms are less important; the roles that these words play are more important. Still, the words listed here are ones used again and again to define reasoning structure, words you will find on every LSAT.

STRUCTURAL TERMS

As we read LSAT Reading Comprehension passages, we want to focus less on subject matter (what is the author discussing?) and more on reasoning structure (why is the author discussing this?). Here are some words that commonly help define this reasoning structure.

list (of related items)

- first
- similarly
- also
- in addition
- additionally
- moreover
- furthermore
- finally

consequence

- consequently
- as a result

transition

- yet
- but
- on the other hand
- however
- although
- nonetheless
- nevertheless
- still
- even though

opinion

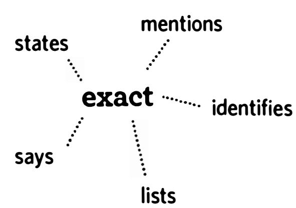
- predicts
- theory
- feeling/felt
- asserts
- critics
- traditional
- opinion

qualifiers

- many
- a few
- some
- most
- typically

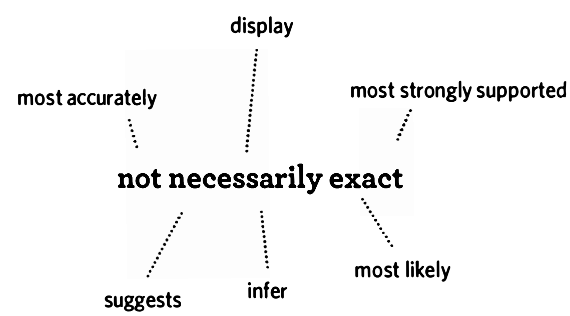
evidence

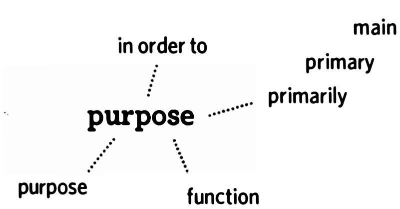
- evident
- for instance
- for example



QUESTION STEM TERMS

As we've discussed, LSAT writers are extremely careful about how they write question stems, and they don't throw in superfluous terms. When you see any of these terms (or related ones), they will have a significant impact on the type of answer that you should expect. If a question stem uses the word "states," you should expect to find exact proof for the right answer; if instead, a question stem uses the word "suggests," you know that you will not find exact proof for the right answer—you should expect to have to make a small leap.





Logical Reasoning

Many of the same terms that are important for Logic Games and Reading Comprehension—terms that define reasoning structure and reasoning relationships—are important for Logical Reasoning. Like Reading Comprehension, Logical Reasoning also has many key words that are argument-specific.

or

It's always important to correctly understand *or* when we see it.

indicators of a conclusion

hence
therefore
indicates
it appears ___
as a result
so
suggests
conclude
thus
for this reason, ___

Not only do these words indicate the conclusion, they often indicate the location of the support. For example, the phrase "suggests" tells us that what follows is the conclusion, and what comes before is the support.

indicators of support

assumption underlying this opinion is ___
for instance
after all
since
as evidence
because
support

For many arguments, the indicators of support are the biggest clues we have about overall structure (for example: John likes steak. He will love Roscoe's Restaurant because they have lots of steaks.)

transition

but
yet
on the other hand
however
although
nonetheless
nevertheless
still
even though

For Logical Reasoning arguments, transitions are typically used to pivot off of an opposing viewpoint or opposing evidence, to either the main point, or support for the main point.

list (of related items)

also
similarly
in addition
first
additionally
and
moreover
finally
furthermore

These words are less common in Logical Reasoning than they are in Reading Comprehension, but when they appear they typically signal a list of supporting premises. Once in a while, they will signal two conclusions—an intermediate conclusion that leads to a final one.

comparisons

greater than
bigger
than
more
higher
lower
less
smaller
just as
as... as
no more likely than

When Logical Reasoning arguments involve comparisons, it's often true that a) the support uses a comparison, but the conclusion doesn't need it, b) the conclusion is a comparison, but the support isn't about a comparison, or c) the support and the conclusion offer two mismatching comparisons.

causation

because of
influences
effects
due to
impacts
causes

Keep in mind that causation is also often wordlessly implied in the reasoning of an argument. For example, "Ken is doing poorly in school, so I am going to limit how much television he can watch," implies a causal relationship between school performance and watching television.

qualifiers

a few
several
certain
some
could
a majority
tend to
most
most likely
usually
almost certainly
generally
primarily due to
strongly influenced
can
must
undoubtedly
definitely
purely
only
should

These qualifiers are most important when they appear in the conclusion, for if our job is to be critical, the qualifiers in the conclusion will almost always be wrong. If a conclusion says something must be, expect that it won't have to be, and if a conclusion claims something is most likely, expect that it won't be.

CONDITIONAL TERMS

if

any
the only
each
whenever
none
all
every
everyone
when
no

words that indicate sufficiency

is

cannot
always
must
were
are
will be
never
was
invariably

words that indicate guarantees

need

then
only
unless
except
require
only if

words that indicate a necessary result

As we've discussed many times, just because statements can be thought of in conditional terms doesn't mean they have to be. If you read an argument, "Jan is Canadian, therefore he must love Arcade Fire," hopefully you can see what's wrong with the reasoning without having to think about it in conditional terms. Still, there will certainly be situations for which you need to think about statements in terms of conditional guarantees (typically for Sufficient Assumption, Inference, and Matching questions), and it's certainly important for you to feel confident in your ability to do so.

do you know what some and most mean?

some

(a.k.a. several, a few, certain)

an unknown amount greater than zero

most

(a.k.a. a majority, usually, generally)

an unknown amount greater than half

Some and *most* are both words that in real life take on a great deal of contextual meaning—these are words that mean different things in different situations. However, as we've discussed, the LSAT requires us to utilize an absolute, non-contextual understanding of words such as *some* and *most*. *Some* does not mean less than half, and it does not exclude the possibility of all. It simply means an unknown amount greater than zero. Thus, knowing that *some* people like jazz does not prove that a majority do not, or even that *any* do not like jazz. *Most* also does not exclude the possibility of all, and thus knowing that *most* of a pie was eaten does not prove that some of it is left. We want to understand these words exactly, as as always we want to be careful not to over-infer.

qualifier math

What happens when you bring together a statement about *some* elements of a certain group having one characteristic, and *most* in that same group having another characteristic—what, if anything, can be inferred? Occasionally, a challenging Logical Reasoning question will require us to bring together a combination of "qualifier" statements to see what can be inferred, and, more importantly, what cannot. Here are the rules that you need to know.

some + some = no inferences	"**Some** bears dream" **and** "**some** bears swim" **doesn't prove there are any bears that dream and swim.**
some + most = no inferences	"**Some** bears dream" **and** "**most** bears swim" **doesn't prove there are any bears that dream and swim.**
most + most = inferences!	"**Most** bears dream" **and** "**most** bears swim" **combine to mean some bears dream *and* swim.**

The ice cream store

Imagine the following twelve statements, each of which could be made about a certain ice cream store. For five of the statements, the reasoning is perfectly valid—the reasoning provided is enough to prove the conclusion reached. For the remaining seven statements, the reasoning provided does not validate the conclusion reached. Do your best to figure out which statements are valid, and which ones are not.

1. Most customers eat their ice cream in the store. Therefore, some take it to go.

2. Some customers prefer vanilla to chocolate, and no customer has no preference in the matter. Therefore, most customers prefer chocolate.

3. Most people use napkins, and some use a spoon. Thus more people use napkins than use spoons.

4. Some customers use coupons, and most customers pay with cash. So, at least some customers who pay with cash do not use coupons.

5. Most customers prefer a cone to a cup, and most customers ask for toppings. So, most customers who prefer a cone ask for toppings.

6. All of the ice cream is kept in the freezer, and there are chocolate chips in some of the ice cream. So, there are some chocolate chips in the freezer.

7. Most of the customers order ice cream, and most customers come with friends. So, at least some of the customers come with friends and order ice cream.

8. Some customers ask for extra toppings, and no customers refuse extra toppings when offered. So there are fewer customers who are offered free toppings than there are customers who ask for extra toppings.

9. Most customers order chocolate ice cream, and most customers get toppings. All customers who get toppings get a free toy. So, some people who order chocolate ice cream get a free toy.

10. Everyone who orders a sundae gets offered a free extra cherry, and most people say yes to the extra cherry. Some people who order the banana split get offered a free extra cherry, and less than half of those people say yes. Therefore, more customers get a free cherry with a sundae than they do with a banana split.

11. Everyone who orders a sundae gets offered a free extra cherry, and most people say yes to the extra cherry. Some people who order the banana split get offered a free extra cherry, and less than half of these people say yes. Therefore, people who order a sundae are more likely to say yes to a free cherry than are people who order a banana split.

12. Everyone who orders a sundae gets offered a free extra cherry, and most people say yes to the extra cherry. Some people who order the banana split get offered a free extra cherry, and less than half of these people say yes. So, some people who order the banana split do not get an extra cherry.

Solutions
Valid: 6, 7, 9, 11, 12 Not Valid: 1, 2, 3, 4, 5, 8, 10

EXTREME LINKS

Certain challenging Logic Games and Logical Reasoning questions require us to evaluate how a complicated set of conditional statements links together. Here's one more drill aimed to help you solidify your linking skills. Note that the last two samples complicate the conditional situation with *some* and *most*. As we've just discussed, this will happen in certain challenging Logical Reasoning questions. I've left space for you to jot down some notations, and you'll probably want to do so. However, also keep in mind that it may be easier in many instances to check the answer directly against the text itself. Finally, keep in mind that these samples are *extreme*—more challenging and complex than what you should expect on test day; if you can nail these, you are in great shape. As always, you should do your work on separate paper if you want to repeat the drill.

Fred won't attend unless Leon does, and Leon will only attend if Sarah does not. If Terrence attends, both Sarah and Rich will attend as well. Either Fred or Jessica, but not both, will attend.

Note which ones are provable and which ones are not.

If Leon attends, Rich will not.
If Sarah attends, Fred will not.
If Fred attends, Sarah will not.
If Rich attends, but Leon does not, Terrence will attend.
If Jessica attends, Leon will not.
If Terrence attends, Leon will not.
If Leon attends, Jessica will not.
If Fred attends, Terrence does not.
Terrence and Leon can't both attend together.
If Sarah does not attend, Jessica will.

Cheaters never win, and winners never brag. And yet all cheaters dream of winning and bragging about it. All winners dream about both of those things too. The public always adores those who win and do not brag about it.

Note which ones are provable and which ones are not.

The public adores all winners.
The public never adores a cheater.
One cannot be adored unless one does not brag.
If one wants public adoration, one must win.
Cheaters do not get to do everything they dream about.
All winners do something they dream about.
Those who never brag always win.
Cheaters get to do at least one thing they dream about.
No one who dreams of bragging is adored.
All winners don't do something they dream about doing.

Every student is required to wear a uniform, and only those wearing uniforms are allowed to ride on the bus. Those who ride on the bus must wear a name tag. Parents are not allowed to wear uniforms, but some nonetheless wear name tags.

Note which ones are provable and which ones are not.

Only students wear uniforms.
Only students ride the bus.
Every student is allowed to ride on the bus.
Parents are not allowed to ride on the bus.
Every student with a name tag is allowed to ride on the bus.
Some people who wear name tags are not allowed to ride on the bus.
No adults are allowed to ride on the bus.
Everyone on the bus wears a uniform and a name tag.
Those without uniforms or name tags cannot ride on the bus.
Those who do not ride on the bus are not students.

If a doll wears a red dress, it will wear the clear glass slippers. If it doesn't wear the red dress, it will wear purple slippers. The doll can only wear one dress at a time, and it can only wear a hat when it wears a purple dress. The doll can't wear a necklace unless it wears a hat.

Note which ones are provable and which ones are not.

If a doll wears clear glass slippers, it wears a red dress.
If a doll does not wear glass slippers, it will wear a purple dress.
If a doll wears a purple dress, it must wear purple slippers.
If the doll wears a necklace, it wears purple slippers.
If a doll does not wear a purple dress, it will wear a red one.
If the doll wears a red dress, it cannot wear a necklace.
Every doll that wears a hat will wear a necklace.
If the doll does not wear purple slippers, it cannot wear a hat.
If a doll doesn't wear a necklace, it must wear the red dress.
If the doll wears a necklace, it also wears a purple dress.

Francine's Lumberyard sells an equal amount of two different categories of wood: lumber and plywood. Some of the lumber is cut to exact dimensions, some of it is not. All of the plywood is cut to exact dimensions. Most of the wood that is cut to exact dimensions is stored inside; the rest is stored outside. Only wood that is not cut to exact dimensions is currently discounted.

Note which ones are provable and which ones are not.

Most of the lumber is currently discounted.
Most of the wood is inside.
If wood is currently discounted, it is lumber.
At least some plywood is currently discounted.
Less than half of the wood is not cut to exact dimensions.
No plywood is currently discounted.
Most of the wood stored inside is plywood.
Most of the wood stored outside is lumber.
Most of the wood is not currently discounted.
Most of the wood inside is not currently discounted.

Most of the dishes at Oldie's Diner are unhealthy, and most are offered as a special during lunchtime. The dishes on special come with free fries or a free soda. All of the dishes offered on special are written up on the chalkboard.

Note which ones are provable and which ones are not.

There are at least some dishes on special that are unhealthy.
One can get free soda with at least one unhealthy dish.
All dishes on the chalkboard come with free fries or a free soda.
There are at least some dishes on the chalkboard that are unhealthy.
All the dishes on the chalkboard are specials.
Most of the dishes on the chalkboard are unhealthy.
Most healthy dishes are not on special.
Most of the dishes are written on the chalkboard.
Most of the dishes on the chalkboard are on special.
There is at least one healthy dish that is not offered on special.

Solutions

	1	2	3	4	5	6	7	8	9	10
Fred	N	Y	Y	N	N	Y	N	Y	Y	N
Cheaters	Y	N	N	N	Y	Y	N	N	N	Y
Student	N	N	N	Y	N	Y	N	Y	Y	N
Dolls	N	N	Y	Y	N	Y	N	Y	N	Y
Lumber	N	N	Y	N	Y	Y	N	N	Y	N
Oldie's	Y	Y	N	Y	N	N	N	Y	Y	N

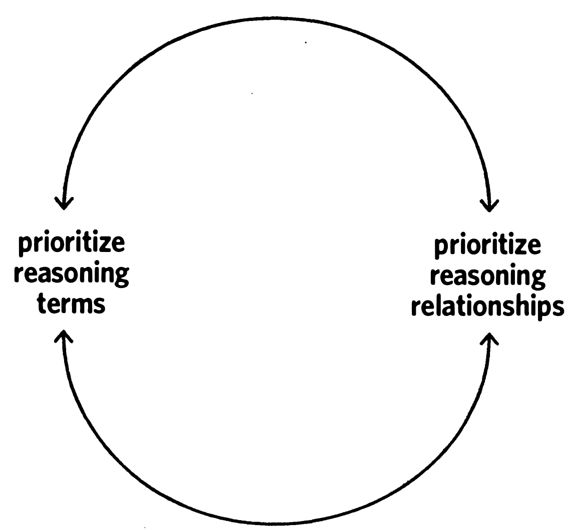
Lesson Review

That was a pretty challenging drill—I hope you found it useful, and at least somewhat fun. In terms of Logical Reasoning, keep in mind that the scenarios in the drill were more complicated that what you should expect in a real question. Also keep in mind that, even for the most difficult conditional questions, most wrong answers are very obviously wrong, and require very little work to eliminate. Don't get in a habit of overthinking these types of answers. If you have a strong understanding of the stimulus, typically only one or two answers warrant serious consideration.

If the material before that drill made you think about LSAT vocabulary in a somewhat new way, or if you want to reinforce some of the lessons we discussed here, or if you just happened to recognize a few terms that you either need to pay more attention to, or need to understand more clearly, here is a suggested drill for you to do on your own:

Go through past Logical Reasoning Questions, Logic Games, and Reading Comprehension passages that you have already worked on. Take the time to systematically circle the key terms mentioned on the previous pages, and take note of how they influence the reasoning relationships in the questions that you've solved. Also take note of situations that use unique variations of these terms, or that don't use these terms at all (such as a Logical Reasoning argument that doesn't use any specific terminology to point us to the conclusion). This drill will help you see the importance of these key terms, and also help you lock in the intimate connection between these key terms and the tasks that you must perform during the exam.

During the real exam, prioritizing these key words should not take much conscious effort (or any conscious effort at all, for that matter). Hopefully, by test day, it's just how you naturally read LSAT passages; these words define reasoning relationships, and if you are focused on reasoning relationships, you will naturally prioritize these words.



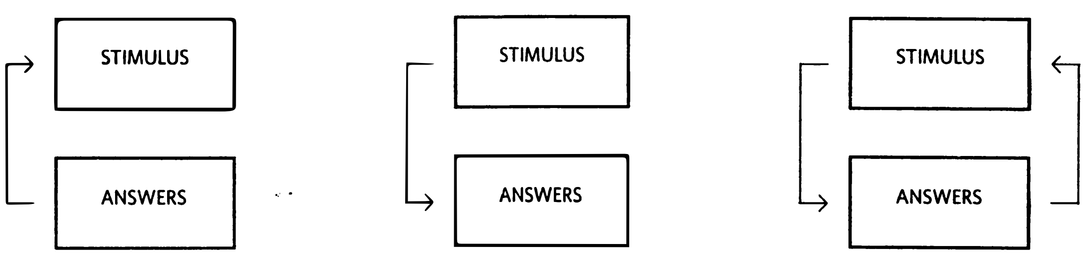
32 LOGICAL REASONING inference & example

In this lesson and the next, we will break down our final Logical Reasoning question types. The question types that we will cover—Inference, Give an Example, Find the Disagreement, and Explain a Discrepancy—are outliers. They require unique strategies, and they require a different mindset.

The two types of questions that we will focus on in this lesson are Inference and Give an Example. These question types are unique for a variety of reasons. For the first time, your main job is not to understand some sort of argument. In fact, the stimulus may not even contain an argument; the stimulus may just contain a set of related points, with no clear reasoning structure or no clear conclusion. In addition, these questions, like those in the last lesson, require an objective understanding—that is, an understanding not influenced by your judgements or biases. And finally, these questions require you to do most of your critical thinking when you get down to the answer choices; for all other types of questions we've discussed thus far, you have done most of your critical thinking in the stimulus.

For the first time, our job is not to understand some sort of argument

We have much to discuss and work on in this short lesson. Let's get started!



For most questions, you want to think about how the answers relate to the stimulus.

For Inference and (most) Give an Example, you want to think about how the stimulus relates the answers.

For Match the Flaw and Match the Reasoning, you need to think about it both ways!

Sometimes in life, you have something you want to do and you have to find a friend to do it with, and other times in life, you have a friend you want to spend time with, and you need to find something to do together. Though the results are similar (you end up doing something with a friend), the way that you get to that result will be different. Something similar happens in Logical Reasoning questions. Most of the time, your job is to understand the stimulus well, and then to think about how the answer choices relate to that understanding. In these cases, the stimulus is your focus, and the issue is how well the answers fit the task presented in the question stem relative to the stimulus. Other times, your job is to understand the stimulus well, and then to think about how it relates to the answer choices. In these cases, the answer choices are your focus, and the issue is how well the information in the stimulus helps you justify that choice. Again, the results are similar—you end up with an answer that matches the task, but the ideal path there is understandably quite different. A final minority of questions (Match the Flaw, Match the Reasoning, and a minority of Give an Example) require you to focus equally on both stimulus and answer choices, and for these questions, you should allow yourself a bit of extra time.

Inference

"If the sentences above are true, which of the following must be true?"
"The information above provides the most support for which of the following?"
(following blank space) "Which of the following most logically completes the argument?"

Inference questions are questions that ask us to figure out which of five answers must be true, or is closest to being proven true, based on the information given to us in the stimulus. For all argument-based questions, our job was to figure out which of five answers best played a specific role relative to the stimulus. For Inference questions, we will use the stimulus to see which of five answers is the most provable.

The key to consistent success on Inference questions is the ability to focus your energy and your thoughts on the clear and simple task at hand: figuring out which answer is provable, or closest to provable, based on the stimulus, and more importantly, which four answers are clearly not provable based on the stimulus. It is to your disadvantage if you let habits useful for other questions—namely, the habits associated with trying to deeply understand and critique arguments—waste your time and energies. The test writers are clearly testing your mental discipline here—the wrong answers are often made tempting by including elements or ideas you might consider if you were to stray off the task at hand. So, keep it simple, and work to develop the discipline necessary to switch gears when you run into this type of question.

SUPER-SIMPLE EXAMPLE

All people enjoy listening to music, but that doesn't mean that all people like the same music. Our tastes are influenced by the types of lives we've lived, and the type of people we are. Since no two people are exactly alike, no two people have exactly the same taste in music.

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

(A) No two people can enjoy the same song at the same time.
(B) Musical tastes are not determined by life experiences alone.
(C) Some people enjoy listening to music that does not fit their own taste in music.
(D) Everybody in the world has a unique favorite song, for a unique reason.
(E) Those who come from very different backgrounds will invariably have very different tastes in music.

The correct answer is (B). (A) and (D) both misinterpret the last line of the stimulus, and give it a more specific meaning than it actually has. (C) goes well beyond the scope of the stimulus (by incorrectly bringing parts together). (E) takes the points in the stimulus too far—very often people from different backgrounds have similar tastes in music, and the information in this argument doesn't prevent that. (B) is not the main point, but it can be 100% justified—we are told of two factors that contribute to musical taste.

step one
understand your job

When we are asked in real life to make inferences, we often instinctively seek answers that either represent big insights, main points, or clever ideas. On the LSAT, the first two instincts are useless, and the last one worse than that. The right answer to an Inference question is simply the answer that is most supported by the text—this answer may or may not be related to the "main point" of the stimulus, and since it must be very close in meaning to the actual text, it will rarely be clever. (It may be *worded* in an unusual, or clever, manner, but the substance of the answer will always be something fairly obvious.) Keep it simple, and just focus on identifying the most provable of five answers.

Note that there are a variety of Inference questions—three main types, actually. They are represented by the three different simple examples on these pages. When a question stem says "must be true," you want to look for an answer that is unequivocally true based on the stimulus. When a question says, "is most supported," you want an answer that is almost completely provable based on the text (and certainly doesn't have any definitive contradictions). Think of it as 90% + true, if that helps. Finally, if asked an Inference question as a fill in the blank, the right answer will have similar characteristics to "most supported," but also commonly represents a main point or the next logical link in a chain of reasoning. Because of this, this last type of Inference question, which happens to be the least common, is the only one where we can make even the most general of predictions about the right answer after reading the stimulus.

SUPER-SIMPLE EXAMPLE

Ted is exactly like his older brother Bob. Bob's favorite sport is tennis, and Ted's favorite sport is tennis. Bob likes watching sitcoms, and Ted ___________

Which of the following most logically completes the sentence?

(A) enjoys watching situational comedies
(B) likes to watch them with him
(C) prefers to watch dramas
(D) wants to be just like Bob
(E) likes to watch tennis

The correct answer is (A). We know Ted and Bob are alike. That does not mean Bob likes it, nor does it mean they do things in the same location at the same time. (B) is about them doing something together, (C) is about them being different, (D) is about Ted's desires (who knows if he wants to be exactly alike) and (E) incorrectly connects different parts of the stimulus. (A) follows the train of thought, and is justifiable based on the text.

two
read the stimulus

As I've already mentioned, the stimulus for an Inference question may or may not contain an argument and, even when it does, there is little assurance that understanding the argument will play a role in answering the question correctly. All that is to say you need not be as focused on identifying argument structure as you read.

Instead, allow yourself a more casual read in which you look for general connections between the ideas mentioned. Note that these stimuli more often than not contain conditional logic, and these statements often link up. It is not necessary to figure out exactly how everything goes together before you go into the answer choices, but if you see a clear connection that you don't want to forget, or you run into a tricky statement you don't want to misread later, feel free to pause and write or notate that in some way next to the stimulus. Note that stimuli are also commonly filled with statements that seem to link up but don't, and these false connections are often related to the most tempting wrong choices.

Do not attempt to predict the correct answer (except for with the rare Complete the Passage, for which it's not a bad idea to come up with a possibility or two). We are looking for an answer provable based on the text and, for any typical three-sentence stimuli, there are probably six different right answers that the test writers could put together. You have no basis for predicting which "truth" will appear.

So, just do your best to understand the stimulus the best you can, take note of any links, and pause to make sure you understand any tricky working. Go through all of this quickly, because you want to focus most of your time and energy on the answer choices.

three
eliminate wrong choices

Keep in mind two things—right answers to Inference questions are not predictable, and right answers to "most supported" questions are impossible to prove definitively. Considering this last point—if the right answer can't be definitely correct, how can you have one answer that must be right and four that must be wrong? By giving the four wrong answers characteristics that make them definitely incorrect.

That last point is the key to becoming an Inference master—though it is commonly difficult to predict or prove a right answer, there are always clear and absolute ways to eliminate wrong answers. Your path to consistent and efficient success is focusing your energy on these wrong answer characteristics.

Wrong answers all have some **definite** reason(s) for not being true. They will give themselves away because of the differences they have with the original text. Either they will mention things not mentioned in the text, or they will jump to conclusions that are not justifiable based on the information given (they will commonly do the latter by making connections in the original argument that aren't actually valid).

four
confirm the right answer

For a Must be True, you should feel that the right answer is definitely true, and for some tougher questions, you may be required to link statements in the stimulus to prove it. For most supported questions, you should feel that the right answer is, in general, consistent with the text (though you may be able to come up with some extreme case in which the two might misalign). The right answer will not contain anything that directly contradicts the stimulus in any way.

When choosing between two answers, look for the one that is "safest": that is, one that requires the smallest leaps from the information in the stimulus. The right answer will always require no leaps, or very small leaps, whereas wrong answers will reveal themselves because they have differences from the text that are more materially significant.

SUPER-SIMPLE EXAMPLE

Manager: Our company does everything it can to provide the highest level of customer service. Most customers who purchase our products are extremely satisfied, and customers have also given rave reviews for our return and exchange services.

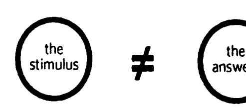
The information given above provides the most support for which of the following statements?

(A) The manager clearly has a personal bias that prevents him from speaking honestly.
(B) Customer service is the top priority of the company.
(C) At least some customers were either dissatisfied with the product they recieved, or ended up regretting the decision to purchase the product, enough so to take action.
(D) The return and exchange services are utilized by a majority of customers.
(E) The company sells the finest product in its product category.

The correct answer is (C). The personal bias mentioned in (A) is pure speculation, and we don't know enough about how customer service rates relative to other priorities to justify (B). "Majority" in (D) is far from provable, and (E) goes well beyond the scope of the text. (C) is not 100% ironclad, but we do know that customers definitely returned products, and it's not much of a leap to think they did so because they either found fault with the product or changed their minds.

The elimination process is the key to success

WRONG ANSWERS CAN'T BE JUSTIFIED



mismatches subject matter

misrepresents relationships

jumps to a conclusion

the process in action

2.18. Modern science is built on the process of posing hypotheses and testing them against observations—in essence, attempting to show that the hypotheses are incorrect. Nothing brings more recognition than overthrowing conventional wisdom. It is accordingly unsurprising that some scientists are skeptical of the widely accepted predictions of global warming. What is instead remarkable is that with hundreds of researchers striving to make breakthroughs in climatology, very few find evidence that global warming is unlikely.

The information above provides the most support for which one of the following statements?

(A) Most scientists who are reluctant to accept the global warming hypothesis are not acting in accordance with the accepted standards of scientific debate.
(B) Most researchers in climatology have substantial motive to find evidence that would discredit the global warming hypothesis.
(C) There is evidence that conclusively shows that the global warming hypothesis is true.
(D) Scientists who are skeptical about global warming have not offered any alternative hypotheses to explain climatological data.
(E) Research in global warming is primarily driven by a desire for recognition in the scientific community.

1. understand your job: Our job is to find one answer that is supported by the information in the passage. In addition, because this is a "complete the argument," we will anticipate that the stimulus will lead us to predict a certain inference.

2. read the stimulus: The stimulus has a very familiar structure—an opinion is presented, and then information is given that rebuts that opinion. Proponents say electric cars will result in the stopping of environmental harm from cars. Then evidence is presented that there will be environmental harm from electric cars. This is proof that the proponent's theory is wrong. We should perhaps expect something about that in the correct answer choice.

3. eliminate wrong answers: (A) is what we expected, so let's leave it. (B) is about popularity relative to other cars—we don't have enough information to support this claim. "Purely technical" is a bit suspicious in (C), and, relative to this stimulus, it's very difficult to define how we'd prove that the car will "succeed." (D) goes too far—we're not told that the charge sources will cause more emissions than we have currently. The same problem plagues (E)—it makes a comparison for which we don't have enough justification.

4. confirm the right answer: (A) is the only answer remaining—let's check it against the text. Proponents believe it will have zero consequence, and the author shows consequence—thus the inference that it will have worse consequences than the proponents believe is justifiable. (A) it is.

1. understand your job: Our job is to find one answer that is supported by the information in the passage. The best way to achieve this is by understanding the passage as best as possible, and then eliminating those answers that are not supported by the information in the stimulus.

2. read the stimulus: The stimulus starts with a general description of the state of modern science, then applies this to a specific discussion of global warming. It's easy for us to draw our own conclusion from the information—since there is great motivation to disprove global warming, and few scientists are able to do it...it seems that global warming is indeed happening. However, if you went to that step, you went too far! Our job is not to draw our own conclusion. We simply want to understand the information actually presented, and not go beyond that.

3. eliminate wrong answers: (A) states the seeming opposite of what is in the text, for the author shows that the skepticism is a natural component of modern science. (B) is very much supportable—let's leave it. (C) is the trap answer if we draw our own conclusion and overreach. It's simply beyond what is supportable based on what we are told. (D) is tempting, but we are not told that they have "not offered any alternative hypotheses"—that goes well beyond the text. (E) is also tempting, but "nothing brings more recognition" is not a good match for "primarily driven by a desire," for we have not been told that recognition is the primary motivator of scientists.

4. confirm the right answer: We only have one answer that has passed through the elimination process. Let's look at (B) again, and carefully check it against the text. "Most" at the beginning of the answer is a bit unsettling, but we're told that "Modern science is *built*..." so "most" is not too much of a stretch (it's like saying "Most people have significant motive to win the lottery." We don't need to take a poll to prove such a statement, for it's just a statement of general human tendencies.) "Nothing brings more recognition," is a pretty good match for "substantial motive," (though not perfect). The fact that the author follows with "accordingly unsurprising that some scientists are skeptical," gives us further support for the idea that recognition is indeed a motive. (B) is far from ironclad provable, but it is the correct answer.

2.8. Proponents of the electric car maintain that when the technical problems associated with its battery design are solved, such cars will be widely used and, because they are emission-free, will result in an abatement of the environmental degradation caused by auto emissions. But unless we dam more rivers, the electricity to charge these batteries will come from nuclear or coal-fired power plants. Each of these three power sources produces considerable environmental damage. Thus, the electric car ________.

Which one of the following most logically completes the argument?

(A) will have worse environmental consequences than its proponents may believe
(B) will probably remain less popular than other types of cars
(C) requires that purely technical problems be solved before it can succeed
(D) will increase the total level of emissions rather than reduce it
(E) will not produce a net reduction in environmental degradation

LINKING CONDITIONS

mini-drill

We've touched on conditional logic at several points in our study process, and because conditional logic is important to the solving of Inference questions, we should do so again here. Many Inference questions require that you interpret, understand, and infer from conditional statements correctly. The hardest of them, perhaps one question per exam, will require that you link conditional statements together in order to infer the correct answer. A big reason these questions can be more difficult is that they often have very tempting wrong answer choices that match the subject matter in the stimulus, but because they incorrectly link together the conditional relationships, cannot be proven.

This drill is meant to provide just a little bit of practice with making these difficult determinations. Below are two sample conditional-heavy stimuli. Accompanying each are ten potential inferences—some justified by the information given, some not. Make sure you understand the conditional statements in the stimulus correctly, and use them to evaluate the answer choices.

For questions that require careful analysis of multiple relationships, it can be helpful to notate these relationships in as simple a way as possible (often you can get away with using letters for elements, though when you do so you must be careful to double-check that the right answer is indeed a right match for the exact wording of the original elements in the stimulus). Notating relationships can be especially useful for questions that present attractive wrong answers—wrong answers that you need a very specific understanding of the conditional logic in order to eliminate.

"A certain group of adults and children went to see a play. All of the adults loved the play, but not all of the children loved the play. All of those who loved the play got posters, and of those who did not love the play, not one went backstage afterwards to meet with the cast."

Which inferences are valid?

1) All adults got posters.
2) No childen got posters.
3) Anyone who went backstage was an adult.
4) Anyone who went backstage got a poster.
5) Anyone who did not love the play was not an adult.
6) All adults went backstage.
7) Most viewers loved the play.
8) Anyone who got a poster went backstage.
9) Anyone who did not get a poster is a child.
10) No one went backstage unless they also got a poster.

"At a certain store, none of the items are placed on sale for a discount unless they are not selling well. Brand Y soda was put on sale for a discount, and Brand X soda is not selling well. All items that are not selling well are advertised in the local paper."

Which inferences are valid?

1) Brand X soda is advertised.
2) Brand Y soda is advertised.
3) Brand X soda is on sale for a discount.
4) Brand Y soda is not selling well.
5) If an item is advertised, it is on sale for a discount.
6) All items on sale for a discount are advertised.
7) If an item is not advertised, it will not be on sale for a discount.
8) Both brands of soda are on sale for a discount.
9) No brands of soda are doing well at the store.
10) If an item is placed on sale for a discount, it is Brand Y.

Solutions

Relationships in Stimulus:
$A \rightarrow L$ ($\cancel{L} \rightarrow \cancel{A}$), $L \rightarrow P$ ($\cancel{P} \rightarrow \cancel{L}$), $B \rightarrow L$ ($\cancel{L} \rightarrow \cancel{B}$)
(A = adult, L = love, P = poster, B = backstage)

1) Valid ($A \rightarrow L \rightarrow P$)
2) Not (some children could have loved the play)
3) Not (some children could have loved the play)
4) Valid ($B \rightarrow L \rightarrow P$)
5) Valid ($\cancel{L} \rightarrow \cancel{A}$)
6) Not (loving doesn't guarantee backstage)
7) Not (depends on proportion/views of children)
8) Not (getting a poster doesn't prove much)
9) Valid ($P \rightarrow \cancel{L} \rightarrow \cancel{A}$)
10) Valid ($B \rightarrow L \rightarrow P$)

Relationships in Stimulus:
$D \rightarrow \cancel{W}$ ($W \rightarrow \cancel{D}$), $Y \rightarrow D$ ($\cancel{D} \rightarrow \cancel{Y}$), $X \rightarrow \cancel{W}$ ($W \rightarrow \cancel{X}$), $\cancel{W} \rightarrow A$ ($\cancel{A} \rightarrow W$)
(D = discount, W = selling well, A = advertised)

1) Valid ($X \rightarrow \cancel{W} \rightarrow A$)
2) Valid ($Y \rightarrow D \rightarrow \cancel{W} \rightarrow A$)
3) Not (we don't know that not selling well → discounted)
4) Valid ($Y \rightarrow D \rightarrow \cancel{W}$)
5) Not (we don't know if they advertise other items as well)
6) Valid ($D \rightarrow \cancel{W} \rightarrow A$)
7) Valid ($\cancel{A} \rightarrow W \rightarrow \cancel{D}$)
8) Not (we don't know if X is)
9) Not (we don't know of other brands)
10) Not (we don't know if X is)

Inference Questions

31.2.20. One of the most vexing problems in historiography is dating an event when the usual sources offer conflicting chronologies of the event. Historians should attempt to minimize the number of competing sources, perhaps by eliminating the less credible ones. Once this is achieved and several sources are left, as often happens, historians may try, though on occasion unsuccessfully, to determine independently of the usual sources which date is more likely to be right.

Which one of the following inferences is most strongly supported by the information above?

(A) We have no plausible chronology of most of the events for which attempts have been made by historians to determine the right date.
(B) Some of the events for which there are conflicting chronologies and for which attempts have been made by historians to determine the right date cannot be dated reliably by historians.
(C) Attaching a reliable date to any event requires determining which of several conflicting chronologies is most likely to be true.
(D) Determining independently of the usual sources which of several conflicting chronologies is more likely to be right is an ineffective way of dating events.
(E) The soundest approach to dating an event for which the usual sources give conflicting chronologies is to undermine the credibility of as many of these sources as possible.

31.2.8. For all species of higher animals; reproduction requires the production of eggs but not necessarily the production of sperm. There are some species whose members are all female; the eggs produced by a rare female-only species of salamander hatch without fertilization. This has the drawback that all offspring have genetic codes nearly identical to that of the single parent, making the species less adaptive than species containing both male and female members.

If the statements above are true, each of the following could be true EXCEPT:

(A) There are some species of salamanders that have both male and female members.
(B) There are some species of higher animals none of whose members produce eggs.
(C) There is a significant number of female-only species of higher animals.
(D) Some species of higher animals containing both female and male members are not very adaptive.
(E) Some offspring of species of higher animals containing both female and male members have genetic codes more similar to one parent than to the other parent.

31.3.10. It is wrong to waste our natural resources, and it is an incredible waste of resources to burn huge amounts of trash in incinerators. When trash is recycled, fewer resources are wasted. Because less trash will be recycled if an incinerator is built, the city should not build an incinerator.

Which one of the following can be properly inferred from the statements above?

(A) All of the city's trash that is not recycled goes into incinerators.
(B) By recycling more trash, the city can stop wasting resources entirely.
(C) The most effective way to conserve resources is to recycle trash.
(D) If the city is to avoid wasting resources, huge amounts of trash cannot be burned in any city incinerator.
(E) If the city does not burn trash, it will not waste resources.

30.2.18. If there are any inspired performances in the concert, the audience will be treated to a good show. But there will not be a good show unless there are sophisticated listeners in the audience, and to be a sophisticated listener one must understand one's musical roots.

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

(A) If there are no sophisticated listeners in the audience, then there will be no inspired musical performances in the concert.
(B) No people who understand their musical roots will be in the audience if the audience will not be treated to a good show.
(C) If there will be people in the audience who understand their musical roots, then at least one musical performance in the concert will be inspired.
(D) The audience will be treated to a good show unless there are people in the audience who do not understand their musical roots.
(E) If there are sophisticated listeners in the audience, then there will be inspired musical performances in the concert.

Inference Solutions

31.2.20. One of the most vexing problems in historiography is dating an event when the usual sources offer conflicting chronologies of the event. Historians should attempt to minimize the number of competing sources, perhaps by eliminating the less credible ones. Once this is achieved and several sources are left, as often happens, historians may try, though on occasion unsuccessfully, to determine independently of the usual sources which date is more likely to be right.

Which one of the following inferences is most strongly supported by the information above?

(A) We have no plausible chronology of most of the events for which attempts have been made by historians to determine the right date.
(B) Some of the events for which there are conflicting chronologies and for which attempts have been made by historians to determine the right date cannot be dated reliably by historians.
(C) Attaching a reliable date to any event requires determining which of several conflicting chronologies is most likely to be true.
(D) Determining independently of the usual sources which of several conflicting chronologies is more likely to be right is an ineffective way of dating events.
(E) The soundest approach to dating an event for which the usual sources give conflicting chronologies is to undermine the credibility of as many of these sources as possible.

1. understand your job: Our job is to find one answer that is supported by the information in the passage. We want to understand the information in the stimulus, then spend the bulk of our energy eliminating unsupported answers.

2. read the stimulus: This is a tough stimulus to understand exactly, and almost impossible to keep in one's head. In general, the idea is that when they can't figure out a date for a historical event, they need to narrow down options to those from the most credible sources, then make a decision independent of those sources. Whew! We will definitely need to come back to confirm the right answer.

3. eliminate wrong answers: (A) is too strong—"no plausible" for "most" events goes far beyond the text. (B) does not relate to the main points, but it does relate to a statement made in the text: "though on occasion unsuccessfully." Let's leave it. (C) goes well beyond the text—not every event has conflicting chronologies (you know what day you were born and there is likely no conflict about that). "Ineffective," in (D) is not supported by the text. "To undermine the credibility" allows us to eliminate (E) quickly.

4. confirm the right answer: (B) is a classic right answer to an inference question—it is not directly relevant to the author's main point, it relates to a secondary issue mentioned, and is justifiable based on the text. Let's review it carefully. We are told in the text that when historians get together to figure out a date, they are occasionally unsuccessful—therefore, it makes sense to say that there are events for which a right date has not been confirmed.

31.2.8. For all species of higher animals; reproduction requires the production of eggs but not necessarily the production of sperm. There are some species whose members are all female; the eggs produced by a rare female-only species of salamander hatch without fertilization. This has the drawback that all offspring have genetic codes nearly identical to that of the single parent, making the species less adaptive than species containing both male and female members.

If the statements above are true, each of the following could be true EXCEPT:

(A) There are some species of salamanders that have both male and female members.
(B) There are some species of higher animals none of whose members produce eggs.
(C) There is a significant number of female-only species of higher animals.
(D) Some species of higher animals containing both female and male members are not very adaptive.
(E) Some offspring of species of higher animals containing both female and male members have genetic codes more similar to one parent than to the other parent.

1. understand your job: This is a slight twist—we are looking for an answer that "must be false." We still want to start off by simply trying to understand the stimulus, and when we get to the answers, the key will be to see which answers directly relate to what the stimulus discusses.

2. read the stimulus: The stimulus is fairly simple to understand—a general statement is made that reproduction for higher species always requires eggs but doesn't always require sperm. Examples of this are given, followed by negative consequences.

3. eliminate wrong answers: Answers that "could be true" are ones that are not directly disproven by the text—so, we want to look for answers that do not directly relate to the subject matter in the stimulus. (A) could be true based on the stimulus, which only discusses one particular "rare" species of salamander. (B) is directly related to the first sentence of the stimulus, and seems to be in opposition to it. Let's leave (B). "Significant number" in (C) is vague, and therefore tough to disprove, especially because the only clue we are working off of is the "some" in the stimulus. Let's eliminate (C). (D) could be true—we've been told nothing about these animals. (E) could be true too—it goes well beyond the scope of our stimulus.

4. confirm the right answer: "None" in (B) is quite strong—when we check it against the text, we see that it's a nice contrast to "all" in the first sentence. (B) is definitely false based on the text, and so (B) is correct.

Inference Solutions

31.3.10. It is wrong to waste our natural resources, and it is an incredible waste of resources to burn huge amounts of trash in incinerators. When trash is recycled, fewer resources are wasted. Because less trash will be recycled if an incinerator is built, the city should not build an incinerator.

Which one of the following can be properly inferred from the statements above?

(A) All of the city's trash that is not recycled goes into incinerators.
(B) By recycling more trash, the city can stop wasting resources entirely.
(C) The most effective way to conserve resources is to recycle trash.
(D) If the city is to avoid wasting resources, huge amounts of trash cannot be burned in any city incinerator.
(E) If the city does not burn trash, it will not waste resources.

1. understand your job: Our job is to find one answer that is supported by the information in the passage. We want to understand the information in the stimulus, then spend the bulk of our energy eliminating unsupported answers. "Properly inferred" means we are looking for an answer that has very strong justification.

2. read the stimulus: The stimulus gives us a lot of information that links together: related to wasting natural resources, burning trash in incinerators, and recycling. Then it ends with a suggestion that the city should not build an incinerator. The stimulus has classic argument construction, but reasoning structure is not our key focus here. With a general understanding of the stimulus, let's focus on eliminating answers.

3. eliminate wrong answers: "All" in (A) is suspicious, and reading further, (A) is not provable—we don't know of other ways the city deals with trash. (B) goes well beyond the test—"stop wasting resources entirely" is too strong. "Most effective" makes (C) suspicious, and reading further, (C) is not provable—the stimulus doesn't discuss other ways to conserve resources. (D) seems closely related to the linking information in the stimulus—let's leave it for now. (E) goes beyond the scope of the stimulus—we don't know of other ways the city wastes resources.

4. confirm the right answer: We only have one attractive answer: (D). Let's try to confirm it. We are told that it is a waste of resources to burn huge amounts of trash. Therefore, we know that if they don't want to waste resources, they can't burn huge amounts of trash! (D) is provable based on the text and is correct.

30.2.18. If there are any inspired performances in the concert, the audience will be treated to a good show. But there will not be a good show unless there are sophisticated listeners in the audience, and to be a sophisticated listener one must understand one's musical roots.

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

(A) If there are no sophisticated listeners in the audience, then there will be no inspired musical performances in the concert.
(B) No people who understand their musical roots will be in the audience if the audience will not be treated to a good show.
(C) If there will be people in the audience who understand their musical roots, then at least one musical performance in the concert will be inspired.
(D) The audience will be treated to a good show unless there are people in the audience who do not understand their musical roots.
(E) If there are sophisticated listeners in the audience, then there will be inspired musical performances in the concert.

1. understand your job: Our job is to find one answer that is supported by the information in the passage. We want to understand the information in the stimulus, then spend the bulk of our energy eliminating unsupported answers. Take note that we are looking for an answer that "must be true."

2. read the stimulus: Wow. There are a lot of statements that do link together, but the links are very confusing to understand. The first sentence gives us a criteria (inspired performances) sufficient to bring about an outcome (a good show). Okay so far. But then it gives us another statement about shows—if there aren't sophisticated listeners, there won't be a good show. It concludes by giving us another conditional to link to sophisticated listeners! It's a challenge to link everything together, and easy to make mistakes doing so. If you see how everything links, great. Otherwise, just know that you've got a series of conditionals that may or may not come together, and that you will need to go into the answer choices looking for ones you can eliminate.

3. eliminate wrong answers: If you went into the answer choices with a fuzzy understanding of the stimulus, you probably quickly realized that there are no answers we can eliminate based on obvious clues—all wrong answers are wrong because they misrepresent the conditional relationships in the stimulus. Therefore, in this case, we want to go back to the stimulus and get a much more specific understanding of the text. Then we will have to evaluate each answer carefully.

The first line gives us a pretty simple conditional: **If any inspired performances → audience will be treated to good show.** The second is a bit tougher to understand, but it says that **if there are no sophisticated listeners → there will not be a good show.** The last conditional is fairly straightforward: **if one is a sophisticated listener → one will understand musical roots.** Okay, let's go through the choices one more time.

4. confirm the right answer: With a clear (likely written out in notation form) understanding, (A) is fairly easy to prove correct. We can link the first two conditions to get: If no sophisticated listeners → no good show → no inspired performances.

The only consequence we know of for "if they are not treated to a good show" is that there will not be any inspired performances. We don't have the links to justify (B). We have no conditional triggered by one understanding musical roots, so we can eliminate (C). (D) is tougher to understand, but it means that if the audience is not treated to a good show, there are people in the audience who do not understand roots. This is the same as (B). The only consequence of sophisticated listening is understanding of musical roots, so we can eliminate (E).

(A) is the only answer that is correctly justifiable by linking the conditionals in the stimulus, and so (A) is correct.

Give an Example

"Which of the following best illustrates the principle mentioned above?"
"Which one of the following most closely conforms to the principle that the passage above illustrates?"

In Lesson 18, we discussed questions that asked us to identify a principle among the answer choices that we could use to justify an argument. Give an Example questions work in reverse—the stimulus presents a principle, and our job is to identify an example of that principle among the answer choices. These Give an Example questions are pretty rare—they show up about once every two or three exams. The stimulus will either present the principle directly, or less commonly, it will illustrate the principle with a (generally simple) example. As always, your key to success is an effective elimination process.

step one: understand your job

For a Give an Example question, you have two primary tasks: understand the principle, and find the answer that best illustrates that principle. Keep it simple.

two: understand the principle

For certain questions, the principle will clearly be stated, and typically it will be stated in such a way so that the meaning is fairly clear. When stimuli present illustrations of a principle, the illustrations are typically simple and clear-cut. All that is to say that the challenge of these questions, when they present significant challenges, tend to come in the evaluation of answer choices. The simpler the principle, the more important it is for you to understand it in a very specific manner, for if the question is a hard one, it will be so because the wrong choices vary in slight or subtle ways from that principle.

three: eliminate wrong choices

Again, the challenge of these questions commonly comes in the elimination process. If a question is more difficult, fewer of the wrong answers will have obvious "tells," and it will take some brain power to think through whether an answer is wrong. So, just like other questions, start your answer choosing process by eliminating wrong choices but, unlike other questions, give yourself a bit of extra time to evaluate each answer carefully even during the first round of eliminations (as opposed to, say, the first round of eliminations for a Required Assumption question, which should go very quickly). Make it a habit to check specific parts of answer choices against specific parts of the principle. The good news is that you generally won't have to "dig" in the stimulus to find the relevant information.

four: confirm the right answer

If you've carefully walked through an answer looking for reasons to eliminate it but can't find one, chances are you are left with the correct choice. Keep in mind that these answers will commonly not have the absolute, steel-grip sort of connection as do other answers (such as those for "Must be True" Inference questions) but will rather give you a "gee, I guess this is in general agreement with the principle" feeling (more akin to "Most Supported" Inference questions). Don't turn the screw too tight that you rip the head—by that I mean don't be so hypercritical that you get rid of the right answer for slight things that don't matter. Trust in your elimination process, focus on that first, and if an answer gets past that, give it a little leeway if need be.

SUPER-SIMPLE EXAMPLE

What makes for a good leader is not charisma, but rather the ability to make others feel important.

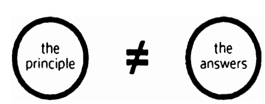
Which of the following best illustrates the principle mentioned above?

(A) Since Tara lacks charisma, she is likely a good boss.
(B) Jack is great at making others feel that he is important. Therefore, Jack is a great boss.
(C) Since Rey is charismatic, he cannot be a good boss.
(D) Sean is a good leader. He is not necessarily the most charming boss, but each of his employees feels needed and critical.
(E) Noah is not charismatic, but he also makes his employees feel unimportant. Therefoe, he would make for a better employee than boss.

The correct answer is (D). The principle is that making others feel important "makes" for a good leader, and that charisma does not. Note that this does not mean that charisma is bad—it simply means it does not "make" one a good leader. (A) misinterprets the principle—we don't know if she makes others feel important. (B) is tempting if you misread it, but the point isn't for others to feel the boss is important. (C) misinterprets the role of charisma. (E) makes an assumption that he would be better as an employee—maybe he's not good as either.

Note that with (D), the aside "he may not be the most charming boss" is a good match for the aside about "charisma," and note that necessary and critical, while not 100% the same thing as important, are a very good match.

WRONG ANSWERS ARE MISMATCHES



mismatching points
mismatching reasoning
mismatching subject matter

the process in action

2.7. Ethicist: The most advanced kind of moral motivation is based solely on abstract principles. This form of motivation is in contrast with calculated self-interest or the desire to adhere to societal norms
and conventions.

The actions of which one of the following individuals exhibit the most advanced kind of moral motivation, as described by the ethicist?

(A) Bobby contributed money to a local charity during a charity drive at work because he worried that not doing so would make him look stingy.
(B) Wes contributed money to a local charity during a charity drive at work because he believed that doing so would improve his employer's opinion of him.
(C) Donna's employers engaged in an illegal but profitable practice that caused serious damage to the environment. Donna did not report this practice to the authorities, out of fear that her employers would retaliate against her.
(D) Jadine's employers engaged in an illegal but profitable practice that caused serious damage to the environment. Jadine reported this
practice to the authorities out of a belief that protecting the environment is always more important than monetary profit.
(E) Leigh's employers engaged in an illegal but profitable practice that caused serious damage to the environment. Leigh reported this practice to the authorities only because several colleagues had been pressuring her to do so.

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1. understand your job: Our job is to clearly understand a principle that is expressed in the stimulus, and then to find the answer choice that best represents that principle.

2. understand the principle: The principle is that the most advanced moral motivation is based solely on abstract principles. It goes on to further explain that this form of motivation is specifically in contrast to two things: calculated self-interest and desire to adhere to societal norms.

3. get rid of wrong answers: From the stimulus, we've gotten a decent sense of what to expect from the right answer (action taken for abstract principles) and a very good sense of what to look for in wrong answers (calculated self-interest and desire to adhere to societal norms). With that in mind, let's eliminate!

(A) has Bobby motivated by societal norms, (B) has Wes motivated by self-interest, (C) has Donna acting out of self-interest, (D) has an action based on a "belief" (let's keep it), and (E) has Leigh motivated by societal pressure.

4. confirm the right answer: (D) is the only attractive answer. Let's review it more carefully—she based her decision on a belief, and it shows no evidence of self-interest or adherence to societal norms. (D) is correct.

35.1.7. Due to wider commercial availability of audio recordings of authors reading their own books, sales of printed books have dropped significantly.

Which one of the following conforms most closely to the principle illustrated above?

(A) Because of the rising cost of farm labor, farmers began to make more extensive use of machines.
(B) Because of the wide variety of new computer games on the market, sales of high-quality computer video screens have improved.
(C) Because a new brand of soft drink entered the market, consumers reduced their consumption of an established brand of soft drink.
(D) Because a child was forbidden to play until homework was completed, that child did much less daydreaming and focused on homework.
(E) Because neither of the two leading word processing programs has all of the features consumers want, neither has been able to dominate the market.

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1. understand your job: Our job is to clearly understand a principle that is illustrated in the stimulus, and then to find the answer choice that best represents that principle.

2. understand the principle: Because the stimulus is an illustration, we'll have to work a bit harder to understand the principle. Here, it's that the wider availability of a newer type of product has had a negative impact on the sales of another product. Simple enough. With that in mind, let's evaluate answers.

3. get rid of wrong answers: (A) is tempting because it discusses similar concepts, but it's actually discussing how problems with one product causes increases in use of another product—this is the opposite of our principle. (B) is about how the growth of one product has led to the growth of another—again, related, but not exactly a representation of our principle. (C) is what we are looking for—a new item causing decreased sales of an older item. Let's leave it for now. (D) is about how not being allowed to do one thing led to doing more of another thing—close, but not the same. (E) talks about negative characteristics, and negative sales, for two competing products—we can eliminate it.

4. confirm the right answer: (C) is the only attractive answer. The one thing it doesn't have going for it is that with the switch from books to audio recordings, presumably the same key person (the author) gets to keep making money (albeit from a different revenue stream). (C) does not have this type of characteristic. Regardless, it's a fairly strong match for the principle, and we can feel confident picking it, in part because we've eliminated the four wrong choices.

Give an Example Questions

29.4.10. Parents should not necessarily raise their children in the ways experts recommend, even if some of those experts are themselves parents. After all, parents are the ones who directly experience which methods are successful in raising their own children.

Which one of the following most closely conforms to the principle that the passage above illustrates?

(A) Although music theory is intrinsically interesting and may be helpful to certain musicians, it does not distinguish good music from bad: that is a matter of taste and not of theory.
(B) One need not pay much attention to the advice of automotive experts when buying a car if those experts are not interested in the mundane factors that concern the average consumer.
(C) In deciding the best way to proceed, a climber familiar with a mountain might do well to ignore the advice of mountain climbing experts unfamiliar with that mountain.
(D) A typical farmer is less likely to know what types of soil are most productive than is someone with an advanced degree in agricultural science.
(E) Unlike society, one's own conscience speaks with a single voice; it is better to follow the advice of one's own conscience than the advice of society.

28.1.10. It is a principle of economics that a nation can experience economic growth only when consumer confidence is balanced with a small amount of consumer skepticism.

Which one of the following is an application of the economic principle above?

(A) Any nation in which consumer confidence is balanced with a small amount of consumer skepticism will experience economic growth.
(B) Any nation in which the prevailing attitude of consumers is not skepticism will experience economic growth.
(C) Any nation in which the prevailing attitude of consumers is either exclusively confidence or exclusively skepticism will experience economic growth.
(D) Any nation in which the prevailing attitude of consumers is exclusively confidence will not experience economic growth.
(E) Any nation in which consumer skepticism is balanced with a small amount of consumer confidence will experience economic growth.

Stick to the steps!
1. understand your job
2. understand the principle
3. get rid of answers
4 confirm the right answer

Give an Example Solutions

29.4.10. Parents should not necessarily raise their children in the ways experts recommend, even if some of those experts are themselves parents. After all, parents are the ones who directly experience which methods are successful in raising their own children.

Which one of the following most closely conforms to the principle that the passage above illustrates?

(A) Although music theory is intrinsically interesting and may be helpful to certain musicians, it does not distinguish good music from bad: that is a matter of taste and not of theory.
(B) One need not pay much attention to the advice of automotive experts when buying a car if those experts are not interested in the mundane factors that concern the average consumer.
(C) In deciding the best way to proceed, a climber familiar with a mountain might do well to ignore the advice of mountain climbing experts unfamiliar with that mountain.
(D) A typical farmer is less likely to know what types of soil are most productive than is someone with an advanced degree in agricultural science.
(E) Unlike society, one's own conscience speaks with a single voice; it is better to follow the advice of one's own conscience than the advice of society.

1. understand your job: Our job is to clearly understand a principle that is mentioned in the stimulus, and then to find the answer choice that best represents that principle.

2. understand the principle: The principle is that a nation can experience economic growth only when consumer confidence is balanced by a small amount of skepticism. So...

3. get rid of wrong answers: We will expect an answer that shows economic growth, based on balancing confidence with a small amount of skepticism, and use that to guide our eliminations. "Any" in (A) is suspicious, and when we check it against the stimulus, we see that it isn't a good fit for "can." Same problem with (B) and (C), which also have some other issues. (D) isn't necessarily what we expected, but it is a representation (a contrapositive representation) of the principle, seemingly. So, let's keep it. (E) is almost exactly like (A) and has the same issues, but it also mixes up skepticism and confidence.

4. confirm the right answer: (D) is the only attractive answer. If we think of it in abstract terms, we get that **confidence only → no economic growth.** The "only when" in the original stimulus gave us the conditional **economic growth → confidence and skepticism.** If we take the contrapositive of the stimulus, we get that **if you don't have either confidence or skepticism → you can't have economic growth.** That's what (D) represents, and (D) is the correct answer.

1. understand your job: Our job is to clearly understand a principle that is illustrated in the stimulus, and then to find the answer choice that best represents that principle.

2. understand the principle: Because the stimulus is an illustration, we'll have to work a bit harder to understand the principle. The stimulus says that parents should not necessarily do what experts say, even if some of the experts are parents themselves, because parents are the ones who see what works and doesn't work with their particular children. To generalize, you shouldn't do what an expert says, because you understand better your specific situation.

3. get rid of wrong answers: With that in mind, let's try to eliminate wrong answers. (A) is about one characteristic not having an impact on another characteristic—that is not a good match. "Need not pay much attention" in (B) is different from the meaning of "not necessarily" in the stimulus, and furthermore (B) represents a disconnect between the person giving advice and the person getting it that the original argument does not. (C) is a good match in that the person "might be well off" to ignore advice, because the person might understand the specific situation better—let's leave it. (D) is not a good match and we can eliminate it without too much thought. (E) is a general statement about one motivation being better than another—that is significantly different from the principle illustrated.

4. confirm the right answer: (C) is the only attractive answer. "Might do well to ignore" is a good match for "should not necessarily...in ways recommend" and "unfamiliar with that mountain" matches well with the idea that parents have an advantage in having "direct experience" with their children.

28.1.10. It is a principle of economics that a nation can experience economic growth only when consumer confidence is balanced with a small amount of consumer skepticism.

Which one of the following is an application of the economic principle above?

(A) Any nation in which consumer confidence is balanced with a small amount of consumer skepticism will experience economic growth.
(B) Any nation in which the prevailing attitude of consumers is not skepticism will experience economic growth.
(C) Any nation in which the prevailing attitude of consumers is either exclusively confidence or exclusively skepticism will experience economic growth.
(D) Any nation in which the prevailing attitude of consumers is exclusively confidence will not experience economic growth.
(E) Any nation in which consumer skepticism is balanced with a small amount of consumer confidence will experience economic growth.

33 LOGICAL REASONING disagreement & discrepancy

In this lesson, we will discuss the remaining two Logical Reasoning question types: Identify the Disagreement and Explain a Discrepancy. As mentioned in the last lesson, these final two question types can and should be considered outliers.

Identify the Disagreement questions have stimuli that have two components: one person's statement and another person's response. (e.g., Coach Willard: "Ted will win the match because he is faster than Fred." Coach Tran's response: Ted is not faster than Fred.") The response will be related to some issue that was brought up, but it may not be related to the main point the first person made. Your job is to figure out exactly what it is that the second person disagrees with.

The critical work for Identify the Disagreement happens in the reading of the stimulus, and in general, you want to have a clear sense of what the disagreement is before looking at the answer choices. For harder questions, it will often be true that the disagreement is somewhat vague or difficult to see, or that the right answer will be phrased in unexpected or challenging ways. We'll discuss strategies that will help overcome these advanced issues.

Explain a Discrepancy questions have stimuli that juxtapose two seemingly conflicting statements together (e.g., "My mother says I'm handsome, yet girls won't go out with me"). Our job is to identify one possible explanation for how both things could be true at the same time.

The critical work for these questions also happens in the reading of the stimulus. If you have a very clear sense of exactly what the discrepancy is ("How come his mother says he's handsome, but girls aren't willing to go out with him?"), you will likely be able to see that four answers are not directly related to that discrepancy.

Neither of these question types contain arguments of the support-conclusion variety that we've come to expect. Still, it should be fairly easy for you to see how the skills you've developed for other question types—such as the ability to read objectively and find the gaps between ideas—will be of benefit to you in mastering these final question types.

Identify the Disagreement

"X and Y's statements provide the most support for holding that they disagree about"
"X and Y disagree over"

Identify the Disagreement questions are some of the most commonly misunderstood questions in the section, and for good reason. We are used to seeing stimuli that relate to one specific argument, and so we have gotten used to thinking about stimuli in terms of components being related to one specific point being made.

But that is not our job in these questions and, in fact, thinking about our job in terms of one main point is what will get us in trouble. Here's the correct way to think about it: The first person will make a variety of points. The second person will make a statement that either clearly shows disagreement with, or strongly hints at disagreement with, *one* of the points that the first person made. Your job is to figure out what the point of disagreement is, exactly.

Here's the challenge of these questions: the second person's comment may or may not have anything to do with the first person's main point—more commonly it will not. When it doesn't, trap answers will be designed to punish test takers who assume that the second person must be disagreeing with the main point that is being made by the first.

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step one

understand your job

Our job is to identify the point of disagreement. Keep in mind that most of what will be discussed, even if it may seem important, will not be relevant to that point of disagreement. Think of it like a typical television debate where two people with opposing points of view take turns talking but not listening. The points these people make often have very little relation to one another. You want to find that one piece of overlap, the one thing that both people discuss and show some opinion about, and you want as specific a sense of that as possible before going into the answer choices.

DIFFERENT POINTS OF DISAGREEMENT

Note that the disagreement can be about anything that either of the people discuss. Here are four different examples of ways that Bob can disagree with Al:

Al: The incumbent will lose the presidential election. The economy generally determines the election outcome, and the economy is in bad shape.

Bob: I know the economy is an important issue, but the other party simply has no viable candidates. He may win again after all.

The disagreement is about whether the incumbent will win the election.

Al: The incumbent will lose the presidential election. The economy generally determines the election outcome, and the economy is in bad shape.

Bob: It is the general mood of the population, not any other specific issue, that will typically sway the outcome of the election.

The disagreement is about what generally determines an election outcome.

Al: The incumbent will lose the presidential election. The economy generally determines the election outcome, and the economy is in bad shape.

Bob: I disagree. Several economists have recently said that we are overly pessimistic about the state of businesses, and I tend to agree with them.

The disagreement is about the health of the economy.

Al: The incumbent will lose the presidential election. The economy generally determines the election outcome, and the economy is in bad shape.

Bob: I disagree. The GDP is growing at a higher than expected rate, and we are wealthier as a nation than we have ever been.

A less direct disagreement about the health of the economy.

two
read the stimulus to identify the disagreement

Read the first person's statement, and try to recognize the underlying reasoning structure that it contains. Next, move on to the next statement and try your best to read it with a fresh eye. After you've read both, think carefully about the point of overlap between the two. For easier versions of these questions, the point of overlap will be quite obvious. For more difficult versions, the point of overlap will be more subtle—one person may express an opinion clearly, but the other might just hint at one. In any case, you know that your task is to, by the end of the stimulus, have a decision made as to what you think is the point of disagreement.

Again, keep in mind that the main point of the first person may or (more commonly) may not be what the second person responds to. Be super careful about that.

three
eliminate wrong choices

This is the key step for this question type. This fact becomes more and more true as questions become more difficult. As disagreements become more subtle, right answers become harder and harder to prove. However, wrong answers will always have clear, defining characteristics that make them wrong.

Look for answers that discuss subjects or relationships that are not discussed in either argument—these are the most common wrong choices. Typically these answers generalize beyond both arguments, get more specific than both arguments, or simply change the subject matter or relationship that is being discussed. Secondly, look for answers that say that the point of disagreement is something that one person discusses, but the other does not. Remember, most commonly, these wrong answers will relate to some main point that one person makes, but the other person doesn't comment on. Finally, it is very rare that you will find some subject or issues for which there is overlapping discussion, but not overlapping opinions. However, this would be the last layer of incorrectness.

four
confirm the right answer

There is a simple way to confirm a right answer. If you think an answer is correct, check it against what the first person said, to make sure that it's clear that person has an opinion about that particular issue. Do the same thing for the second person. Keep in mind that for tougher versions of these questions, you may have to read between the lines slightly (very slightly) to get that second opinion. If you feel confident both people have an opinion about what is being discussed in the answer choice, and if you feel that these opinions contrast, then the answer will be correct.

When stuck between two answers, pick the one that stays closest to the subjects and relationships specifically discussed in the text for both statements. The answer that requires you to make more leaps, assumptions, and generalizations will be incorrect.

SUPER-SIMPLE EXAMPLE

Al: Smith has been a wonderful CEO. It is because of him that the company is prospering.

Bob: This CEO has had nothing to do with the prospering of the business.

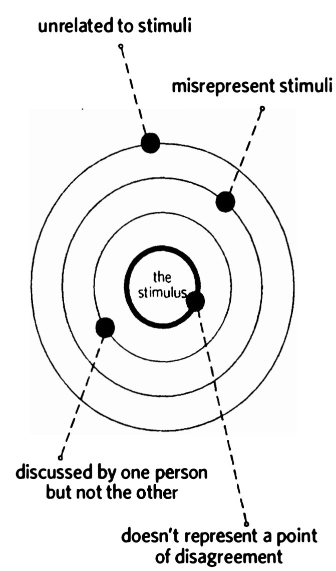
Al and Bob disagree about whether

(A) Smith has been a good CEO
(B) the company is prospering
(C) the office of CEO has never had an impact on economic affairs
(D) Smith is responsible for the company's prosperity
(E) the economics of a country are a way to gauge the efficacy of a CEO

The correct answer is (D). With (A), we don't know if Bob thinks Smith is a good CEO. With (B), there is no proof they disagree about whether the business is prospering, and in fact it seems they may agree on this point. With (C), Al thinks it has, but we only know Bob's opinion about this particular CEO, and that's not enough. We get a sense of Al's opinion about (E), but not Bob's.

Al says directly that it is "because of him" that the company is prospering, and Bob says "this CEO has had nothing to do with the prospering." Those are clear signs they disagree about (D).

CONSTELLATION OF WRONG ANSWERS



the process in action

2.16. Taylor: Researchers at a local university claim that 61 percent of the information transferred during a conversation is communicated through nonverbal signals. But this claim, like all such mathematically precise claims, is suspect, because claims of such exactitude could never be established by science.

Sandra: While precision is unobtainable in many areas of life, it is commonplace in others. Many scientific disciplines obtain extremely precise results, which should not be doubted merely because of their precision.

The statements above provide the most support for holding that Sandra would disagree with Taylor about which one of the following statements?

(A) Research might reveal that 61 percent of the information taken in during a conversation is communicated through nonverbal signals.
(B) It is possible to determine whether 61 percent of the information taken in during a conversation is communicated through nonverbal signals.
(C) The study of verbal and nonverbal communication is an area where one cannot expect great precision in one's research results.
(D) Some sciences can yield mathematically precise results that are not inherently suspect.
(E) If inherently suspect claims are usually false, then the majority of claims made by scientists are false as well.

1. understand your job: Our job is to recognize the point of disagreement. That means we want to read both statements, then figure out the point of overlap before moving on to the answers.

2. identify the disagreement: Antonio's main point is that one who lives a life of moderation misses out on opportunities; Marla's point is that one must be moderate in one's moderation. The overlap, again, comes in the supporting information—Antonio says one can live a life of moderation by never deviating, while Marla says that one who does not deviate fails to live a life of moderation. With that in mind, we move on to step three.

3. get rid of answers: "Desirable" is not discussed by either person (though it's somewhat close to "must" mentioned by Marla) and coupled with "great chances," we can quickly eliminate (A). (B) is what we're expecting—let's leave it. The "other virtues" allow us to eliminate (C). "How often" is not a great match, and Antonio does not discuss what one "ought" to do, so we can eliminate (D). "Desirable" makes (E) unattractive. Again, it's similar to "must" in Marla's comments, but Antonio never says one should live an unspontaneous life, and in fact, he says nothing about what one *should* do at all. We can eliminate (E) too.

4. confirm the right answer: That leaves only (B). We check it against what Antonio says—"requires" and "can" are not perfect matches (not on the LSAT, anyway!) but they are pretty close. Marla says a life of moderation requires a bit of non-moderation. (B) is the best representation of what they disagree over, and (B) is correct.

1. understand your job: Our job is to recognize the point of disagreement. That means we want to read both statements, then figure out the point of overlap before moving on to the answers.

2. identify the disagreement: The non-verbal signals that are the key topic for Taylor are not discussed by Sandra, whose main point about precision being commonplace in areas of life is not directly related to what Taylor discusses. The point of overlap happens to be, for both arguments respectively, a secondary issue—the possible preciseness of scientific claims. Taylor says science cannot get precise results ("claims...established by science") and Sandra says many scientific disciplines get "extremely precise results." We want an answer that relates to this disagreement...

3. get rid of answers: ...and we want to eliminate answers that don't relate to both of the comments. (A) is about Taylor's specific experiment—we know nothing about Sandra's feelings toward it (maybe there is a reason specific to that experiment that prevents exactness, which Sandra knows about). We can quickly eliminate (A). (B) is very similar to (A)— again, without knowing other things about Sandra's feelings toward this specific experiment, it's tough to say they disagree. (C), though a bit more generalized, has the same issues as (A) and (B). (D) is the answer we expected, so let's leave it. (E) goes beyond the scope of either discussion and can be eliminated quickly.

4. confirm the right answer: Let's check (D) against what both people said. Taylor says all mathematically precise claims are suspect. Sandra says some sciences can obtain extremely precise results, which "should not be doubted." We have strong evidence of disagreement, and (D) is the correct answer.

3.7. Antonio: One can live a life of moderation by never deviating from the middle course. But then one loses the joy of spontaneity and misses the opportunities that come to those who are occasionally willing to take great chances, or to go too far.

Marla: But one who, in the interests of moderation, never risks going too far is actually failing to live a life of moderation: one must be moderate even in one's moderation.

Antonio and Marla disagree over

(A) whether it is desirable for people occasionally to take great chances in life
(B) what a life of moderation requires of a person
(C) whether it is possible for a person to embrace other virtues along with moderation
(D) how often a person ought to deviate from the middle course in life
(E) whether it is desirable for people to be moderately spontaneous

Identify the Disagreement Questions

31.2.1. Moralist: TV talk shows are contributing to the moral decline in our country. By constantly being shown the least moral people in our society, viewers begin to think that such people are the norm, and that there is something wrong with being morally upright.

TV talk show host: Well, if there is such a decline, it's not because of TV talk shows: we simply show people what they want to see. What can be wrong with letting the viewers decide? Furthermore, if restrictions were put on my show, that would amount to censorship, which is wrong.

The moralist's and the TV talk show host's statements provide the most support for holding that they disagree about whether

(A) TV talk shows should be censored
(B) people's moral standards have changed
(C) TV talk shows influence people's conception of what is the norm
(D) TV talk shows, by presenting immoral guests, are causing a moral decline
(E) it is wrong not to let the viewers decide what they want to see

31.3.19. Professor Beckstein: American Sign Language is the native language of many North Americans. Therefore, it is not a foreign language, and for that reason alone, no student should be permitted to satisfy the university's foreign language requirement by learning it.

Professor Sedley: According to your argument, students should not be allowed to satisfy the university's foreign language requirement by learning French or Spanish either, since they too are the native languages of many North Americans. Yet many students currently satisfy the requirement by studying French or Spanish, and it would be ridiculous to begin prohibiting them from doing so.

Their statements commit Professors Beckstein and Sedley to disagreeing about which one of the following:

(A) whether American Sign Language is the native language of a significant number of North Americans
(B) whether any North American whose native language is not English should be allowed to fulfill the university's foreign language requirement by studying his or her own native language
(C) whether the university ought to retain a foreign language requirement
(D) whether any other universities in North America permit their students to fulfill a foreign language requirement by learning American Sign Language
(E) whether the fact that a language is the native language of many North Americans justifies prohibiting its use of fulfill the university's foreign language requirement

30.2.10. Goswami: I support the striking workers at Ergon Foods. They are underpaid. The majority of them make less that $20,000 per year.

Nordecki: If pay is the issue, I must disagree. The average annual salary of the striking workers at Ergon Foods is over $29,000.

Goswmi and Nordecki disagree over the truth of which one of the following statements?

(A) The average annual salary at Ergon Foods is over $29,000.
(B) Pay is the primary issue over which the workers are striking at Ergon Foods.
(C) It is reasonable to support striking workers who are underpaid.
(D) The striking workers at Ergon Foods are under paid.
(E) It was unreasonable for the workers at Ergon Foods to go on strike.

Identify the Disagreement Solutions

31.2.1. Moralist: TV talk shows are contributing to the moral decline in our country. By constantly being shown the least moral people in our society, viewers begin to think that such people are the norm, and that there is something wrong with being morally upright.

TV talk show host: Well, if there is such a decline, it's not because of TV talk shows: we simply show people what they want to see. What can be wrong with letting the viewers decide? Furthermore, if restrictions were put on my show, that would amount to censorship, which is wrong.

The moralist's and the TV talk show host's statements provide the most support for holding that they disagree about whether

(A) TV talk shows should be censored
(B) people's moral standards have changed
(C) TV talk shows influence people's conception of what is the norm
(D) TV talk shows, by presenting immoral guests, are causing a moral decline
(E) it is wrong not to let the viewers decide what they want to see

1. understand your job: We have to find the point of disagreement.

2. identify the disagreement: The point of disagreement has to do with the impact of TV talk shows on moral decline. This is the main point for the moralist. We get a hint of the disagreement at the beginning of the TV talk show host's statement: "If there is such a decline" indicates that he's not going to argue with whether there is a moral decline or not. This is followed by "it's not because of TV talk shows," a statement we know directly contradicts the moralist's claim.

3. get rid of answers: Though the talk show host talks about censorship, the moralist does not, and we can quickly eliminate (A). We know they are not debating whether there has been a decline (change), so we an eliminate (B). (C) is tempting, but the talk show host's statements make no clear reference to the "norm." (D) is the answer we expected—let's leave it. (E) is incorrect because the moralist does not make claims about what is right and wrong, and it's unclear what he would think about freedom of viewership.

4. confirm the right answer: We check (D) against the moralist's comments, and there is a great match (immoral guests = least moral people, causing = contributing). We check it against the talk show host, and there is also a great match (causing a decline = such a decline is not due to). (D) is correct.

31.3.19. Professor Beckstein: American Sign Language is the native language of many North Americans. Therefore, it is not a foreign language, and for that reason alone, no student should be permitted to satisfy the university's foreign language requirement by learning it.

Professor Sedley: According to your argument, students should not be allowed to satisfy the university's foreign language requirement by learning French or Spanish either, since they too are the native languages of many North Americans. Yet many students currently satisfy the requirement by studying French or Spanish, and it would be ridiculous to begin prohibiting them from doing so.

Their statements commit Professors Beckstein and Sedley to disagreeing about which one of the following:

(A) whether American Sign Language is the native language of a significant number of North Americans
(B) whether any North American whose native language is not English should be allowed to fulfill the university's foreign language requirement by studying his or her own native language
(C) whether the university ought to retain a foreign language requirement
(D) whether any other universities in North America permit their students to fulfill a foreign language requirement by learning American Sign Language
(E) whether the fact that a language is the native language of many North Americans justifies prohibiting its use of fulfill the university's foreign language requirement

1. understand your job: We have to find the point of disagreement.

2. identify the disagreement: Here the point of disagreement is a bit less clear-cut, but Sedley is disagreeing with the idea that because a language is native to certain North Americans, it should not be permitted to fulfill the foreign language requirement. We get a sense this is important from the statement "for that reason alone." Sedley strikes down the reasoning with counterexamples, and says prohibition in the analogous situation would be ridiculous. Note that Sedley does not come out and specifically state that American Sign Language should be permitted.

3. get rid of answers: (A) is not a point of debate and is not related to anything Sedley says. (B) is a bit broad but because we weren't exactly clear on the disagreement, let's leave it. (C) is not discussed by either party. "Other universities" allows us to quickly eliminate (D). (E) is the answer we expected. Let's leave it.

4. confirm the right answer: Having seen (E), (B) looks a lot less attractive. Though the concepts in (B) underly both arguments, Beckstein is only talking specifically about one language, and Sedley specifically about two others. There is not enough there to support the broad generalizations ("any") in (B). Going back to (E), we know that Beckstein clearly feels that the reason justifies the prohibition. Sedley's opinion is not spelled out as obviously, but we know that the reason behind the evidence he gives is to show that a language being a native language isn't justifiable criteria. (E) is correct.

Identify the Disagreement Solutions

30.2.10. Goswami: I support the striking workers at Ergon Foods. They are underpaid. The majority of them make less that $20,000 per year.

Nordecki: If pay is the issue, I must disagree. The average annual salary of the striking workers at Ergon Foods is over $29,000.

Goswmi and Nordecki disagree over the truth of which one of the following statements?

(A) The average annual salary at Ergon Foods is over $29,000.
(B) Pay is the primary issue over which the workers are striking at Ergon Foods.
(C) It is reasonable to support striking workers who are underpaid.
(D) The striking workers at Ergon Foods are underpaid.
(E) It was unreasonable for the workers at Ergon Foods to go on strike.

1. understand your job: We have to find the point of disagreement.

2. identify the disagreement: We're not sure if Nordecki actually supports or doesn't support (or doesn't care about) the striking workers (maybe he supports them for other reasons). The part he disagrees about, he states, is pay. Goswami says they are underpaid. Nordecki states he disagrees about pay, then gives evidence that seems to show that he thinks they are not underpaid. With that in mind...

3. get rid of answers: (A) is a trap answer—it seems that Goswami is perhaps disagreeing with this (especially if your math skills are rusty) but what a majority of people make is different from an average salary, and so Goswami never discusses the subject matter of (A). We're unclear if pay is the "primary issue"—neither mentions this, so they can't disagree about it—get rid of (B). What is "reasonable" or not is not discussed, and (C) goes well beyond the scope of the discussion. (D) is what we expected so let's leave it. (E) discusses "unreasonable," which the argument does not, and it's unclear what Nordecki feels about the strikers.

4. confirm the right answer: As usual, we are left with one answer that does not have any obvious flaws. Goswami directly states that they are underpaid, and Nordecki says that he disagrees with pay being an issue for striking. (D) is correct.

Explain the Discrepancy

"Which one of the following, if true, most helps to resolve the apparent discrepancy described above?"
"Which one of the following, if true, most helps to explain why ...?"

Explain the Discrepancy questions present, within the stimuli, two ideas that could be seen, at least in part, as going against one another. Your job is to identify one answer that could possibly explain how these two ideas could, at the same time, be true.

The key to explaining a discrepancy is understanding it. If you go into the answer choices with a very clear sense of the discrepancy that needs to be explained, the wrong answers will be far more obviously wrong, and the right answer will be far more obviously right.

One helpful tool for thinking about the discrepancy is to start yourself off with, "How come...," as in "How come my mother says I am handsome but no women find me attractive?" or "How come my family tells me they love my cooking but they never want to have seconds?" Each stimulus that comes with an Explain the Discrepancy question will contain a discrepancy that can be phrased in those terms, and if you get it right, thinking about it that way will make it easier to get through the answer choices.

SUPER-SIMPLE EXAMPLE

Terence says he sent me a fax, but I know he does not own a fax machine.

Which of the following, if true, most helps to resolve the apparent discrepancy described above?

(A) Fax machines were once far more important to businesses than they are now.
(B) Terence has the capacity to send a fax through his computer without the aid of a fax machine.
(C) Terence used to own a fax machine but he gave it to his sister.
(D) A day earlier, Terence said he left a phone message.
(E) Most faxes are sent through fax machines.

How can he send faxes without a fax machine? The only answer that attempts to answer that question is the correct answer, (B). (A), (C), and (E) shed no light on this particular faxing situation, and (D) has nothing to do with faxing at all. If (B) is true, it explains how he could send a fax even though he doesn't have a fax machine.

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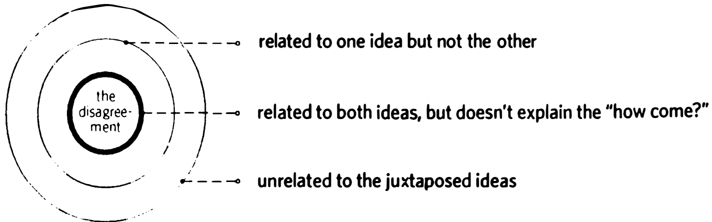
step one: understand your job

When we recognize that it's an Explain the Discrepancy question, the first thing we often have to do is "de-program" ourselves from looking for an argument—there isn't going to be one here. Instead, there will be one statement made, and then another one that seemingly contradicts it in some way. In the stimulus, our job is to identify these contradicting statements and to understand what that contradiction is. In the answer choices, our job is to find one possible explanation for how this discrepancy can be.

two: find the discrepancy

As we read the stimulus, our job is simply to recognize the discrepancy that it contains. Note that the discrepancy will often have very obvious and logical explanations, and in general, the discrepancy will not be difficult to locate. The key is to understand it as specifically as you can before going into the answers and, again, using the phrase, "How come..." will help you get in the right mindset.

CONSTELLATION OF WRONG ANSWERS



three: eliminate wrong choices

With a clear sense of the discrepancy, you want to go into eliminating answer choices. On a broad level, we can simply say that wrong answers will not explain the discrepancy, and that's generally what you want to look out for. On a more specific level, you will find that wrong answers do not directly relate to the stimulus, or very commonly, wrong answers relate to or explain one of the ideas in question, but not in a way that impacts the discrepancy in any way. The most attractive wrong answers will relate to both subjects or ideas that are being juxtaposed, but will do so in a way that doesn't answer the question of "How come..."

four: confirm the right answer

The right answer will provide an answer to the question of "How come..." Keep in mind that the answer does not have to be foolproof (it never will be) nor does it even have to be particularly reasonable or attractive. It simply has to be a *possible* explanation for the discrepancy, and there will always just be one such answer. If you can see how an answer can have a direct impact on the discrepancy, and if you are correct in your thoughts, you have the correct answer.

the process in action

2.25. During the nineteenth century, the French academy of art was a major financial sponsor of painting and sculpture in France; sponsorship by private individuals had decreased dramatically by this time. Because the academy discouraged innovation in the arts, there was little innovation in nineteenth century French sculpture. Yet nineteenth century French painting showed a remarkable degree of innovation.

Which one of the following, if true, most helps to explain the difference between the amount of innovation in French painting and the amount of innovation in French sculpture during the nineteenth century?

(A) In France in the nineteenth century, the French academy gave more of its financial support to painting than it did to sculpture.
(B) The French academy in the nineteenth century financially supported a greater number of sculptors than painters, but individual painters received more support, on average, than individual sculptors.
(C) Because stone was so much more expensive than paint and canvas, far more unsponsored paintings were produced than were unsponsored sculptures in France during the nineteenth century.
(D) Very few of the artists in France in the nineteenth century who produced sculptures also produced paintings.
(E) Although the academy was the primary sponsor of sculpture and painting, the total amount of financial support that French sculptors and painters received from sponsors declined during the nineteenth century.

1. understand your job: Our job is to find a potential explanation for the discrepancy that exists in the stimulus. The first and most important part of that job is to understand exactly what that discrepancy is.

2. find the discrepancy: The first sentence serves as background. In the second sentence, we get the two mismatching facts: the academy, which was the primary sponsor of the arts, discouraged innovation, and yet the paintings show a remarkable amount of innovation. Sculpture, on the other hand, showed an expectedly low level of innovation. The question is, "How come the painters were able to have so much innovation, even though the primary sponsor discouraged it?" Let's look for an answer that relates to this issue.

3. get rid of answers: (A) mentions something that might be helpful to painters, but remember that it's still the French academy (which discourages innovation) that is giving the money. (B) gives us a complicated mathematical breakdown of the sponsorship money, but it's all a waste of time—it's still money coming from the academy, and it doesn't clearly explain the discrepancy. (C) gives us an explanation for the discrepancy that seems to make sense—let's leave it. It's unclear how (D) relates to the discrepancy. (E) impacts sculptures and paintings in the same way.

4. confirm the right answer: (C) is the only answer that presents a significant difference between sculptors and painters that may help explain the discrepancy—sculptors were dependent on financial support more so than painters. That connects to the wishes of sponsors—sculptors need to pay more heed to their wishes because they are more dependent on them for support. Painting could flourish despite the wishes of sponsors because painting is less dependent on financial help. (C) is probably not an answer you predicted, but (C) is correct.

3.2. After replacing his old gas water heater with a new, pilotless, gas water heater that is rated as highly efficient, Jimmy's gas bills increased.

Each of the following, if true, contributes to an explanation of the increase mentioned above EXCEPT:

(A) The new water heater uses a smaller percentage of the gas used by Jimmy's household than did the old one.
(B) Shortly after the new water heater was installed, Jimmy's uncle came to live with him, doubling the size of the household.
(C) After having done his laundry at a laundromat, Jimmy bought and started using a gas dryer when he replaced his water heater.
(D) Jimmy's utility company raised the rates for gas consumption following installation of the new water heater.
(E) Unusually cold weather following installation of the new water heater resulted in heavy gas usage.

1. understand your job: Our job is to evaluate potential explanations for the discrepancy that exists in the stimulus. The first and most important part of that job is to understand exactly what that discrepancy is.

2. find the discrepancy: Jimmy replaced his water heater with a more efficient one, but his bills went up. The discrepancy is clear: How come his bill went up even though he's using a more efficient water heater?

3. eliminate wrong answers: Since this is an "EXCEPT" question, we know to eliminate answers that actually do explain the increase in costs. In this case, it's fairly simple to anticipate some potential answers—city raised the price of gas, or Jimmy needed to use more of it all of a sudden—and it's a good idea to brainstorm a bit (just a bit) before looking at the choices, so that you have a better gauge for what is a reasonable explanation. (A) is a tough one to get your head around—you should expect it to use a smaller percentage of total gas because it's more efficient, but maybe this also means that more gas is being used overall in the house? Let's not eliminate it. (B) gives an explanation for increased gas use that makes clear sense. Eliminate (B). (C) does as well, so we can eliminate (C). (D) also helps explain the increase in costs, so we can eliminate that. (E) also helps explain increased use, so we can eliminate that.

4. confirm the right answer: (A) is the only answer remaining. If written differently, perhaps it could serve as proof that Jimmy is using a lot more gas than he did before. However, as written, it's unclear exactly how this impacts the discrepancy or explains the increase in cost. (A) is correct.

Explain the Discrepancy Questions

31.2.11. Several thousand years ago, people in what is now North America began to grow corn, which grows faster and produces more food per unit of land than do the grains these people had grown previously. Corn is less nutritious than those other grains, however, and soon after these people established corn as their staple grain crop, they began having nutrition-related health problems. Yet the people continued to grow corn as their staple grain, although they could have returned to growing the more nutritious grains.

Which one of the following, if true, most helps to explain why the people mentioned continued to grow corn as their staple grain crop?

(A) The variety of corn that the people relied on as their staple grain produced more food than did the ancestors of that variety.
(B) Modern varieties of corn are more nutritious than were the varieties grown by people in North America several thousand years ago.
(C) The people did not domesticate large animals for meat or milk, either of which could supply nutrients not provided by corn.
(D) Some grain crops that could have been planted instead of corn required less fertile soil in order to flourish than corn required.
(E) The people discovered some years after adopting corn as their staple grain that a diet that supplemented corn with certain readily available nongrain foods significantly improved their health.

31.2.13. Studies have shown that, contrary to popular belief, middle-aged people have more fear of dying than do elderly people.

Each of the following, if true, contributes to an explanation of the phenomenon shown by the studies EXCEPT:

(A) The longer one lives, the more likely it is that one has come to terms with dying.
(B) Middle-aged people have more people dependent upon them than people of any other age group.
(C) Many people who suffer from depression first become depressed in middle age.
(D) The longer one lives, the more imperturbable one becomes.
(E) Middle-aged people have a more acute sense of their own mortality than do people of any other age group.

31.3.2. One way kidney stones can form is when urine produced in the kidneys is overly concentrated with calcium or oxalate. Reducing dietary calcium has been thought, therefore, to decrease the likelihood that calcium will concentrate and form additional stones. Oddly enough, for many people the chances of recurrence are decreased by increasing calcium intake.

Which one of the following, if true, most helps to resolve the apparent discrepancy described above?

(A) Laboratory studies on animals with kidney stones reveal that they rarely get additional stones once calcium supplements are added to the diet.
(B) Increasing dietary oxalate while reducing dietary calcium does not reduce the chances of kidney stone recurrence.
(C) Kidney stone development is sometimes the result of an inherited disorder that can result in excessive production of calcium and oxalate.
(D) Increasing calcium intake increases the amount of calcium eliminated through the intestines, which decreases the amount to be filtered by the kidneys.
(E) Some kidney stones are composed of uric acid rather than a combination of calcium and oxalate.

Explain the Discrepancy Solutions

31.2.11. Several thousand years ago, people in what is now North America began to grow corn, which grows faster and produces more food per unit of land than do the grains these people had grown previously. Corn is less nutritious than those other grains, however, and soon after these people established corn as their staple grain crop, they began having nutrition-related health problems. Yet the people continued to grow corn as their staple grain, although they could have returned to growing the more nutritious grains.

Which one of the following, if true, most helps to explain why the people mentioned continued to grow corn as their staple grain crop?

(A) The variety of corn that the people relied on as their staple grain produced more food than did the ancestors of that variety.
(B) Modern varieties of corn are more nutritious than were the varieties grown by people in North America several thousand years ago.
(C) The people did not domesticate large animals for meat or milk, either of which could supply nutrients not provided by corn.
(D) Some grain crops that could have been planted instead of corn required less fertile soil in order to flourish than corn required.
(E) The people discovered some years after adopting corn as their staple grain that a diet that supplemented corn with certain readily available nongrain foods significantly improved their health.

1. understand your job: We have to find a potential explanation for the discrepancy. The first step is to get a clear sense of exactly what the discrepancy is.

2. find the discrepancy: The word "yet" in the last sentence tips us off to the discrepancy: Why did people continue to grow corn, when it caused them health issues?

3. get rid of answers: There are many answers that could work here, but we want to first focus on eliminating the four that don't effectively help answer the question we posed above. (A) states that the corn those people grew produced more edible parts than that grown before. Comparing corn of one era to another doesn't help us answer the question. By the same token, we can eliminate (B). (C) explains partly why they were getting ill, but not why they continued to grow corn. (D) doesn't explain why they stuck with corn. That leaves us with only (E).

4. confirm the right answer: If (E) is true, it explains why they continued to grow corn, even though it caused some health issues—they would be able to find ways to overcome these health issues. (E) is correct.

31.2.13. Studies have shown that, contrary to popular belief, middle-aged people have more fear of dying than do elderly people.

Each of the following, if true, contributes to an explanation of the phenomenon shown by the studies EXCEPT:

(A) The longer one lives, the more likely it is that one has come to terms with dying.
(B) Middle-aged people have more people dependent upon them than people of any other age group.
(C) Many people who suffer from depression first become depressed in middle age.
(D) The longer one lives, the more imperturbable one becomes.
(E) Middle-aged people have a more acute sense of their own mortality than do people of any other age group.

1. understand your job: We have to find a potential explanation for the discrepancy. The first step is to get a clear sense of exactly what the discrepancy is.

2. find the discrepancy: The words "contrary to popular belief" tip us off as to the discrepancy, and we can ask ourselves: Why do middle-aged people fear death more than do the elderly?

3. get rid of answers: Since this is an EXCEPT question, we want to get rid of the four answers that do indeed help to answer the question we posed above. (A) helps explain why the elderly have less fear, and so can be eliminated. (B) explains why middle-aged people would worry (have fear) of dying, and so can be eliminated. (C) is about depression, and it's unclear what the link is to fear of dying—let's leave it. (D) helps explain why the elderly have less fear, and (E) helps explain why the middle-aged have more.

4. confirm the right answer: (C) is the only answer that didn't seem to directly impact the discrepancy—check it one more time against the stimulus—there is no link given between depression and fear of death. We need not think of the reasoning any further. (C) is correct.

Explain the Discrepancy Solutions

31.3.2. One way kidney stones can form is when urine produced in the kidneys is overly concentrated with calcium or oxalate. Reducing dietary calcium has been thought, therefore, to decrease the likelihood that calcium will concentrate and form additional stones. Oddly enough, for many people the chances of recurrence are decreased by increasing calcium intake.

Which one of the following, if true, most helps to resolve the apparent discrepancy described above?

(A) Laboratory studies on animals with kidney stones reveal that they rarely get additional stones once calcium supplements are added to the diet.
(B) Increasing dietary oxalate while reducing dietary calcium does not reduce the chances of kidney stone recurrence.
(C) Kidney stone development is sometimes the result of an inherited disorder that can result in excessive production of calcium and oxalate.
(D) Increasing calcium intake increases the amount of calcium eliminated through the intestines, which decreases the amount to be filtered by the kidneys.
(E) Some kidney stones are composed of uric acid rather than a combination of calcium and oxalate.

1. understand your job: We have to find a potential explanation for the discrepancy. The first step is to get a clear sense of exactly what the discrepancy is.

2. find the discrepancy: The words "oddly enough" in the last sentence tip us off to the discrepancy: If *reducing* calcium decreases the likelihood of calcium forming into additional stones, why, for many people, does *increasing* calcium decrease chance of kidney stone reocurrance?

3. get rid of answers: We want to get rid of the answer choices that don't help resolve the question we posed above. (A) does not provide us with a "why" answer and can be quickly eliminated. (B) is very tough to understand, especially in the context of the stimulus, but we don't really need to, for it's clear to see that it doesn't help explain the strange consequences of *increasing* calcium intake. (C) also doesn't explain why people's chances decrease when they increase calcium intake. (D) may explain it—at least it shows one way that increasing intake has a positive effect on stones—let's leave it. It's unclear how (E) can help explain why an increase of calcium can lead to a decrease in kidney stone incidence.

4. confirm the right answer: (D) is the only answer we did not eliminate. If we take (D) to be true, it tells us that increasing calcium intake decreases the amount of calcium the kidney must filter. Since we are talking about problems in the kidney caused by calcium, it makes sense that this is a possible explanation for the discrepancy. (D) is correct.

Question Stem
Quick Quiz

question type abbreviations

A (assumption)	**MF** (match flaw)
AS (argument structure)	**MR** (match reasoning)
C (ID the Conclusion)	**R** (find role)
E (give an example)	**RA** (required assumption)
ED (explain the discrepancy)	**S** (strengthen)
F (flaw)	**SA** (sufficient assumption)
I (inference)	**SP** (supporting principle)
ID (ID the disagreement)	**W** (weaken)

Should I look for an argument?

yes	no

Should I be critical of the reasoning?

yes	no

Should I always expect to predict the answer?

yes	no

Should I apply the answers to the stimulus, or vice-versa?

answers to stimulus	both	stimulus to answers

We've now taken a careful look at every type of Logical Reasoning question that will appear on your LSAT. Each type of question that we've discussed requires something unique from us, and we can use the question stem to define our focus and our priorities. The question stem tells us what our job is in reading the stimulus, and of course, it tells us what our job is in evaluating the answer choices.

The trouble is, there is great overlap in terms of the tasks that the different questions present. And while certain strategies may be effective for two different questions, others won't be, and unless you are careful, you will suffer from carrying over or melding, strategies for different types of questions, especially if you are seeing them all mixed together in a section. For example, both ID Conclusion and Flaw require us to understand argument structure, but ID the Conclusion doesn't require us to be critical of the argument, whereas Flaw questions do. If we aren't careful, we will waste time looking for flaws during ID the Conclusion questions, or, on a more subtle level, allow our bias about flawed reasoning influence which answers we find attractive or not.

There are five main factors when it comes to how we define how to think about question tasks. There are the four general overlapping ways to define the tasks presented in the question:

1) Whether we are meant to search for an argument.
2) Whether we are meant to be critical of an argument.
3) To what degree we should expect to predict the main answer.
4) Whether we are meant to apply the answers to the stimulus, or the stimulus to the answers.

And then there is the specific task (find the required assumption, the most supported answer, etc.) that the question presents most directly.

The mini-quiz on the left requires that you think about each type of question in terms of the four overlapping characteristics. I expect that most of you will have very little trouble with most of the answers (though you may disagree with me on an answer or two, which is fine). What's actually more important is whether the answer is instinctual, or whether you have to think about it for a while. If you have to go back and forth before making a decision, then you know that you are not performing that task intuitively when you solve those types of questions. For example, if you aren't sure for a Flaw question, whether you should be able to predict the answer or not (you should), then you probably aren't consistently trying to predict the flaw.

So, use this little quiz to get a sense of where your instincts are now. Abbreviations for each type of question have been provided—for each task characteristic, put the question types into the categories in which they fit best. Answers and further discussion are on the next page.

Solutions

question type abbreviations

A (assumption)	**MF** (match flaw)
AS (argument structure)	**MR** (match reasoning)
C (ID the Conclusion)	**R** (find role)
E (give an example)	**RA** (required assumption)
ED (explain the discrepancy)	**S** (strengthen)
F (flaw)	**SA** (sufficient assumption)
I (inference)	**SP** (supporting principle)
ID (ID the disagreement)	**W** (weaken)

Should I look for an argument?

yes	no
F, A, MF, SA, SP, RA, S, W, C, R, AS, MR	I, E, ID, ED

Notes:

The vast majority of question types will require that you look for an argument. Inference, Give an Example, and ID the disagreement questions may have points and arguments within the stimulus, but in those situations your understanding of the argument will not necessarily be related to or important to your primary tasks.

Should I be critical of the reasoning?

yes	no
F, A, MF, SA, SP, RA, S, W	C, R, AS, MR, I, E, ID, ED

When you are meant to be critical, your critical evaluation of the stimulus will always be important to answering the question. When you are not asked to be critical, being so can often be a detriment, for these questions are often designed to test your ability to stay objective.

Should I always expect to predict the answer?

yes	no
F, A, C, R, AS, ID	MF, SA, SP, RA, S, W, MR, I, E, ED

The questions listed under "yes" are all ones that ask directly about something in the stimulus—something you should be able to figure out without needing the answers. The ones under "no" all require you to think about the relationship between answer and stimulus—that is, you need to think about whether a particular answer strengthens an argument, or a certain assumption is required. For all of the questions on the right, there will generally be many, many potential right answers. For the ones on the left, there will be only one, though it may be worded differently than you might expect.

Should I apply the answers to the stimulus, or vice-versa?

answers to stimulus	both	stimulus to answers
F, A, MF, SA, SP, RA, S, W, C, R, AS, ID, ED	MF, MR	I, E

For most questions, we apply the answers to the stimulus—for example, we find an answer that weakens the stimulus, or a principle to prop up the stimulus. For a few questions, we have to change gears and think about what the stimulus tells us about the answer choices—which answer choice is true based on the stimulus, or what is an example representative of the stimulus. You should expect to spend a bit more time on the two types of questions (MF, MR) that require careful analysis of arguments in both the stimulus and the answer choices.

34 LOGICAL REASONING general logical reasoning strategies

Back to basics.

Find the Flaw. Find the Assumption. Match the Flaw. Sufficient Assumption. Supporting Principle. Required Assumption. Strengthen. Weaken. Identify the Conclusion. Identify the Role. Identify the Argument Structure. Match the Reasoning. Inference. Give an Example. Identify the Disagreement. Explain a Discrepancy.

We've done it. We've taken a detailed look at every nook and cranny that the Logical Reasoning section presents, and we've discussed every nuance of strategy and thought process that could possibly be of relevance on test day. If you feel a bit of information overload at this point, take it as a sign of how much we've learned.[1]

1. Here's another way to think about how far we've come: can you imagine what would have happened if you'd gone into the test without learning all of this stuff?

In these final stages, we're going to focus on bringing together everything we've worked on, with the goal of getting you ready to present all of your skills at their sharpest and most optimal point on test day.

Starting in the first lesson, I presented the LSAT as a test of three fundamental issues: *your reading ability, your reasoning ability,* and *your mental discipline.* These are extremely general terms, and so it's understandable and expected that you began with a broad and general sense of what to expect from the exam. If I've done a decent job as an instructor, my hope is that throughout your studies, these terms have taken on more and more specific meaning, and I hope that by this point, you are able to see, in a clear fashion, how every single challenge presented on the LSAT can be defined in terms of those three issues.

In Lesson 5, when we really started to dig deep into Logical Reasoning, I prioritized one skill as the key skill necessary for mastering the section—your ability to recognize what is wrong with the relationship between a point being made and the support for that point. My hope is that you see very clearly why this ability to find flaws is central to how you solve a majority of questions, and I hope that it's clear to see how the micro-skills necessary for finding fault—those having to do with an ability to recognize reasoning structure—are also, commonly, the keys to your success for the minority of questions that do not require you to figure out what is wrong with arguments.

Let's take a bit of time to organize all that we have learned about specific types of questions in terms of the three fundamental issues: your ability to read, reasoning, and retain mental discipline.

Logical Reasoning Tests Your Ability to Read

No one-day, hundred-question, multiple-choice standardized exam can do an adequate job of accurately gauging something as complex and difficult (if not impossible) to define as general reading ability—for our ability to read, write, and use words goes to the core of how we think. And yet the LSAT is a test that by its nature needs to be *standardized*—that is, it is an exam that must be built upon absolute principles of right and wrong, "correct" reading and "incorrect" reading.

The way in which the test writers standardize it is by limiting what they test to a very, very narrow range of specific, and clearly definable, reading skills: your ability to read for reasoning structure, and your ability to understand the exact meaning of certain words that are important for defining reasoning relationships.

Understanding reasoning structure is essential for success on all Logical Reasoning questions. The reasoning relationship most important, of course, is that between a point that is made and the support for that point. Find the Flaw, Find the Assumption, Match the Flaw, Sufficient Assumption, Supporting Principle, Required Assumption, Strengthen, Weaken, Identify the Conclusion, Identify the Role, Identify the Argument Structure, and Match the Reasoning are all questions that require you to see this relationship clearly. Inference, Give an Example, Identify the Disagreement, and Explain a Discrepancy also require an understanding of reasoning structure, but for these questions it is more important that you are able to see which statements link together, and which do not.

Understanding the meaning of words is, of course, also essential for good reading, and will be in any context. LSAT questions are often about abstract or unique subjects, and they often discuss things or use words that are unfamiliar to us. It's essential to understand that they are not testing our understanding of these strange words. The words they care about are the words that are fundamental to reasoning structure—the words, like *some, since, but,* and *require*—that appear in every question and define the narrow range of logical issues that underlie the exam. Your understanding of these words is essential to your understanding of the stimulus, and it's also critical to your ability to relate answer choices to that stimulus.

Logical Reasoning Tests Your Ability to Reason

The ability to recognize reasoning structure, and the ability to reason, are two very different skills. The first is an objective skill—the author has intended something in the text, and your job is to understand correctly what that intention was. The second is a subjective skill—your job is to give your personal opinion as to whether the points made by that author do in fact align in the manner in which he says they do.

Because reasoning ability is once again for the test writers an impossibly difficult issue to define, let alone evaluate, they are forced to limit what they test to a very narrow scope. By and large, they limit the testing arena to one specific issue—the faulty relationship between a point that is made and the support for that point. Find the Flaw, Find the Assumption, Match the Flaw, Sufficient Assumption, Supporting Principle, Required Assumption, Strengthen, and Weaken are all questions that test this specific ability.

Logical Reasoning Tests Your Mental Discipline

Lastly, Logical Reasoning questions and the Logical Reasoning section as a whole, are designed to test your mental discipline—which we can loosely define as your ability to control your thought process and to align it with the specific task at hand.

The test writers do this by juxtaposing questions that alternatively reward or punish certain actions on your part. We just discussed questions that require and reward your reasoning abilities—on the flip side of that, there are questions that specifically test your ability to turn off those reasoning abilities, that reward your ability to not judge. Many wrong answers to questions such as Identify the Conclusion and Inference are designed specifically to match up with and tempt those who cannot show the discipline to know when to not inject personal judgment.

On a more subtle level, they do this by using questions that are very closely related to one another but not exactly alike. Certain wrong answers to Required Assumption questions are designed to be tempting because they seem sufficient to fix the argument's issue; certain wrong answers to Sufficient Assumption questions are designed to be tempting because they seem to include information the argument requires.

General Strategies for All Questions

With these three central issues in mind, let's bring together all of the question-specific strategies we've discussed.

Step one: understand your task

The first step is to read the question stem, and to use it as a trigger for how you will be thinking about the question. The plans and expectations that are considered in those first few seconds are absolutely critical to consistent and efficient success.

The question stem will help you define your task at various parts of your process, but initially what's most important to get out of that question stem is a sense of how you should approach the reading of the stimulus.

There are two primary decisions to be made. The first is, "Do I read for an argument (yes, the vast majority of the time), or do I read for something else (such as a general understanding or for a clear sense of a discrepancy)?" For the majority of instances in which your job is to recognize the argument, the second decision is, "Is my job to critically evaluate and find fault with the reasoning in the argument (yes, most of the time), or is my job to understand but not evaluate?"

There are also expectations to be set. If it is a question that requires you to critically evaluate an argument, you should expect to go through a certain thought pattern—identifying the conclusion *then* the support—to arrive at a particular point—figuring out why the support does not justify the point. For these types of questions, you should expect to have a clear sense of the flaw in the argument before going into the answer choices. On the flip side, if you don't have a clear sense of the flaw, you should expect that it will be more difficult for you to evaluate answers, and that you will likely have to "grind it out" if you are to get to a right answer. Other question types come with their own expectations of what you need to extract from your read: Match the Reasoning questions, for example, require a clear understanding of reasoning structure, and Explain a Discrepancy requires a clear understanding of the discrepancy to be explained.

There are also expectations to be set about your experience with the answer choices. For some questions, such as Find the Flaw, you should have a very strong sense of the right answer before going into the answers. For others, such as Inference, you should expect to have very little sense of what will be in the right answer before going into the answer choices. Most other types of questions will fall somewhere in between those two extremes. A Give an Example question, for example, will allow you to have some expectations because you know exactly what type of example you are looking for, but there will be aspects of the answer choice—such as the subject matter—that you will not be able to predict.

To sum up, use the question stem to define your task and to set your expectations. You will come back to it throughout the question to refocus yourself at various points, but at first, use it to determine how you should attack and what you should get out of the stimulus.

Step two: evaluate the stimulus

With a clear sense of your job, the next step is to evaluate the stimulus. Even before you read the first word, you should have a very clear sense of the goals you want to accomplish—I want to find the main point, I need to eventually figure out the flaw, etc. These goals will coincide for certain questions—what you need to get out of the stimulus for a Required Assumption question and a Weaken question, for example, are virtually identical, but will be very different for others (what you need to get out of the stimulus for Match the Reasoning, Sufficient Assumption, and Inference are very different).

The most significant distinction comes between those questions that require objectivity and those that require subjectivity. For those that require you to critically evaluate arguments, you need to do everything you can to understand the problems in reasoning before you go into the answers. Keep in mind that all flaws can be thought of as fitting into three main categories—the author mistakes a piece for the puzzle, mistakes apples for oranges, or adds 1 + 1 and gets 3. When you feel lost or uncertain, use these three basic guides to center yourself and understand the argument as simply as you can.

Step three: eliminate wrong choices

For all Logical Reasoning questions, I strongly suggest that you focus on eliminating wrong answers before selecting the correct one. For certain questions, such as Find the Flaw, you will be less dependent on the elimination process, because you will have a much stronger sense of what the right answer will be. For others, you will be more dependent on the elimination process because the right answer can be somewhat subjective and can often be in many ways unpredictable. Regardless, it is to your benefit to focus on this step in this process, and this is especially true for those seeking top scores. To have one final discussion of why, let's return one more time to thinking from the perspective of the test writers. These test writers have a specific burden that is relevant to this particular discussion: they need to create questions that have a definite correct answer. Even if they, say, create a question that asks which of five answers "most strengthens" a point that is made, they cannot actually have two answers that strengthen, one just a bit more than the other, because determining which of those two answers strengthens more would be a subjective exercise—that is, one based on debatable opinion, and they can't have that. They must have one right answer and four wrong answers.

How can they accomplish this? They can do so by having a definite right answer. However, the majority of Logical Reasoning questions are too complex to have a definite right answer. So, the only way for the test writers to create a clear distinction is to have four definitely wrong answers. This is why, once you've become skilled at recognizing answer characteristics, it's generally clearer to see why answers are wrong than it is to see why answers are right. This is especially true for the hardest questions.

Answers are wrong for at least one of three main reasons: they discuss subjects or actions or ideas that are different from those that are discussed in the text, they misrepresent that information in the text, or they don't fulfill the specific task the question stem requires—they represent weaknesses in the reading skills, reasoning skills, and skills of mental discipline that the section is designed to test. Every single wrong answer in Logical Reasoning can be defined in those terms, and hopefully by this point these issues define the way that you naturally think about, and attack, wrong answer choices. If you are at a level of mastery with this skill, you should be able to consistently eliminate three or four answers before you have to really dig in deep for the careful comparisons. This is a hugely valuable skill for making questions easier and getting higher scores. If you don't yet feel this level of aptitude, but still feel you have a significant amount of studying left to do, definitely make sure to make elimination skills a top priority in your training.

Step four: confirm the right answer

Once you are down to a few, or (hopefully) one attractive answer, it is finally time to see if it truly is the one. Students new to the LSAT commonly rush to this step, or incorrectly see it as a cause, rather than a consequence, of their troubles. Students experienced at the LSAT recognize that selecting the right answer is the last step in a multi-step process, and it's always true that the better you perform steps one through three, the easier step four will be.

Do not select the right answer by thinking about it in a vacuum, and do not select the best of two answers by comparing them against one another.[2] What makes an answer correct is how it relates to the stimulus, and so the best way to confirm that an answer is correct is by checking it against that stimulus. Make sure that the answer does not reach beyond the text, and make sure the answer does not disagree with the text. If it passes on those two points, and if it fulfills the task presented in the question stem, it will be the correct answer.

2. Note that a comparison of answer choices can be useful for recognizing what you should be looking out for when you compare the answer choices to the text in the stimulus.

The Factors That Determine Test-Day Performance

People have good days and bad, some people perform better under pressure and others worse, and so on, but there are two main characteristics that differentiate top scores from average scorers from below average scorers: skills and habits. Your skills and your habits will determine how well you perform on test day.

Remember, we defined a skill, at least in terms of how it relates to the LSAT, as the ability to apply understanding and strategies to the solving of problems. The requirements for skill are correct understanding, effective approaches, and experience at applying that understand and those approaches.

Your habits are defined by the way in which you utilize your skill set. In real life, we all know people who make the most of limited talents, and people who make little of significant talents—the same applies to the LSAT, and the habits that you've developed will, in large part, determine whether you test up to your potential.

Habits are like muscles—the key to getting them is putting in the work. You can't get good habits by wanting them or knowing about them—you have to get them by practicing them. In addition, good habits always require a healthy amount of self-reflection—you need to be able and willing to think carefully and honestly *about how you think*. Figure out what it is you think about during a question that ends up being useful, and more importantly, figure out what you think about during a question that ends up being not useful, or not relevant to getting the correct answer. Wanting to get every question right is like wanting to make every basket during a game—it's a nice thought to have, but it's not particularly noble or useful. What is far more important and effective is knowing that you did everything you could to put yourself in the best position to succeed on each question, and the development of sound habits—habits that always push you toward the right answers, is the key representation of this commitment.

Starting on the next page is a set of fifteen questions—they are all questions you have seen before in the question-specific lessons. Use this set to reflect carefully on your skills and habits. Worry less about right and wrong (since you've seen and reviewed these before, right and wrong is not going to be so reflective of your abilities anyway) and rather, focus on the process you use to solve the questions. Work, as dancers and other performers do, to have *perfect form*—that is, work to solve questions as directly, efficiently, and correctly as possible. Following the question set are assessment tools meant to help you reflect on your process. You can look at them after each problem, or after the set of problems, but do make sure to look at them while your solution process is still fresh in your mind. Take note of the steps where you went sideways, or steps you found to be particularly difficult, and look for patterns. Finally, use these questions to think about the similar but different tasks that the different types of questions present, and to gauge how specific your skills and habits have become, relative to those tasks. Worry less about timing for this drill, but as always, do try to solve questions at a real-time pace.

Process Practice
Problem Redo

30.2.6. The student body at this university takes courses in a wide range of disciplines. Miriam is a student at this university, so she takes courses in a wide range of disciplines.

Which one of the following arguments exhibits flawed reasoning most similar to that exhibited by the argument above?

(A) The students at this school take mathematics. Miguel is a student at this school, so he takes mathematics.
(B) The editorial board of this law journal has written on many legal issues. Louise is on the editorial board, so she has written on many legal issues.
(C) The component parts of bulldozers are heavy. This machine is a bulldozer, so it is heavy.
(D) All older automobiles need frequent oil changes. This car is new, so its oil need not be changed as frequently.
(E) The individual cells of the brain are incapable of thinking. Therefore, the brain as a whole is incapable of thinking.

29.1.12. It is well known that many species adapt to their environment, but it is usually assumed that only the most highly evolved species alter their environment in ways that aid their own survival. However, this characteristic is actually quite common. Certain species of plankton, for example, generate a gas that is converted in the atmosphere into particles of sulfate. These particles cause water vapor to condense, thus forming clouds. Indeed, the formation of clouds over the ocean largely depends on the presence of these particles. More cloud cover means more sunlight is reflected, and so the Earth absorbs less heat. Thus plankton cause the surface of the Earth to be cooler and this benefits the plankton.

Which one of the following accurately describes the argumentative strategy employed?

(A) A general principle is used to justify a claim made about a particular case to which that principle has been shown to apply.
(B) An explanation of how a controversial phenomenon could have come about is given in order to support the claim that this phenomenon did in fact come about.
(C) A generalization about the conditions under which a certain process can occur is advanced on the basis of an examination of certain cases in which that process did occur.
(D) A counterexample to a position being challenged is presented in order to show that this position is incorrect.
(E) A detailed example is used to illustrate the advantage of one strategy over another.

28.1.5. The number of codfish in the North Atlantic has declined substantially as the population of harp seals has increased from two million to more than three million. Some blame the seal for the shrinking cod population, but cod plays a negligible role in the seal's diet. It is therefore unlikely that the increase in the seal population has contributed significantly to the decline in the cod population.

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

(A) People who fish for cod commercially are inconvenienced by the presence of large numbers of seals near traditional fishing grounds.
(B) Water pollution poses a more serious threat to cod than to the harp seal.
(C) The harp seal thrives in water that is too cold to support a dense population of cod.
(D) Cod feed almost exclusively on capelin, a fish that is a staple of the harp seal's diet.
(E) The cod population in the North Atlantic began to decline before the harp-seal population began to increase.

28.1.10. It is a principle of economics that a nation can experience economic growth only when consumer confidence is balanced with a small amount of consumer skepticism.

Which one of the following is an application of the economic principle above?

(A) Any nation in which consumer confidence is balanced with a small amount of consumer skepticism will experience economic growth.
(B) Any nation in which the prevailing attitude of consumers is not skepticism will experience economic growth.
(C) Any nation in which the prevailing attitude of consumers is either exclusively confidence or exclusively skepticism will experience economic growth.
(D) Any nation in which the prevailing attitude of consumers is exclusively confidence will not experience economic growth.
(E) Any nation in which consumer skepticism is balanced with a small amount of consumer confidence will experience economic growth.

28.3.19. On a certain day, nine scheduled flights on Swift Airlines were canceled. Ordinarily, a cancellation is due to mechanical problems with the airplane scheduled for a certain flight. However, since it is unlikely that Swift would have mechanical problems with more than one or two airplanes on a single day, some of the nine cancellations were probably due to something else.

The argument depends on which one of the following assumptions?

(A) More than one or two airplanes were scheduled for the nine canceled flights.
(B) Swift Airlines has fewer mechanical problems than do other airlines of the same size.
(C) Each of the canceled flights would have been longer than the average flight on Swift Airlines.
(D) Swift Airlines had never before canceled more than one or two scheduled flights on a single day.
(E) All of the airplanes scheduled for the canceled flights are based at the same airport.

30.4.2. The current theory about earthquakes holds that they are caused by adjoining plates of rock sliding past each other; the plates are pressed together until powerful forces overcome the resistance. As plausible as this may sound, at least one thing remains mysterious on this theory. The overcoming of such resistance should create enormous amounts of heat. But so far no increases in temperature unrelated to weather have been detected following earthquakes.

Which one of the following most accurately expresses the main point of the argument?

(A) No increases in temperature have been detected following earthquakes.
(B) The current theory does not fully explain earthquake data.
(C) No one will ever be sure what the true cause of earthquakes is.
(D) Earthquakes produce enormous amounts of heat that have so far gone undetected.
(E) Contrary to the current theory, earthquakes are not caused by adjoining plates of rock sliding past one another.

31.3.2. One way kidney stones can form is when urine produced in the kidneys is overly concentrated with calcium or oxalate. Reducing dietary calcium has been thought, therefore, to decrease the likelihood that calcium will concentrate and form additional stones. Oddly enough, for many people the chances of recurrence are decreased by increasing calcium intake.

Which one of the following, if true, most helps to resolve the apparent discrepancy described above?

(A) Laboratory studies on animals with kidney stones reveal that they rarely get additional stones once calcium supplements are added to the diet.
(B) Increasing dietary oxalate while reducing dietary calcium does not reduce the chances of kidney stone recurrence.
(C) Kidney stone development is sometimes the result of an inherited disorder that can result in excessive production of calcium and oxalate.
(D) Increasing calcium intake increases the amount of calcium eliminated through the intestines, which decreases the amount to be filtered by the kidneys.
(E) Some kidney stones are composed of uric acid rather than a combination of calcium and oxalate.

28.1.15. The town of Springhill frequently must declare a water emergency, making it temporarily unlawful to use water for such nonessential purposes as car washing. These emergencies could be avoided if Springhill would introduce permanent economic incentives for water conservation. Actually, Springhill discourages conservation because each household pays a modest monthly flat fee for any amount of water below a certain usage threshold, and a substantial per-liter rate only after the threshold is reached.

Which one the following, if true, most strengthens the argument?

(A) The Springhill authorities do a poor job of enforcing its water emergency laws and many people break the laws without incurring a penalty.
(B) The town council of Springhill recently refused to raise the threshold.
(C) The threshold is kept at a high enough level to exceed the water requirements of most households in Springhill.
(D) The threshold is not as high in Springhill as it is in neighboring towns.
(E) The threshold remains at the predetermined level specified by law until a change is approved by the Springhill town council.

29.4.18. All actions are motivated by self-interest, since any action that is apparently altruistic can be described in terms of self-interest. For example, helping someone can be described in terms of self-interest: the motivation is hope for a reward or other personal benefit to be bestowed as a result of the helping action.

Which one of the following most accurately describes an error in the argument's reasoning?

(A) The term "self-interest" is allowed to shift in meaning over the course of the argument.
(B) The argument takes evidence showing merely that its conclusion could be true to constitute evidence showing that the conclusion is in fact true.
(C) The argument does not explain what is meant by "reward" and "personal benefit."
(D) The argument ignores the possibility that what is taken to be necessary for a certain interest to be a motivation actually suffices to show that that interest is a motivation.
(E) The argument depends for its appeal only on the emotional content of the example cited.

29.1.19. Arbitrator: The shipping manager admits that he decided to close the old facility on October 14 and to schedule the new facility's opening for October 17, the following Monday. But he also claims that he is not responsible for the business that was lost due to the new facility's failing to open as scheduled. He blames the contractor for not finishing on time, but he too, is to blame, for he was aware of the contractor's typical delays and should have planned for this contingency.

Which one of the following principles underlies the arbitrator's argument?

(A) A manager should take foreseeable problems into account when making decisions.
(B) A manager should be able to depend on contractors to do their jobs promptly.
(C) A manager should see to it that contractors do their jobs promptly.
(D) A manager should be held responsible for mistakes made by those whom the manager directly supervises.
(E) A manager, and only a manager, should be held responsible for a project's failure.

31.3.10. It is wrong to waste our natural resources, and it is an incredible waste of resources to burn huge amounts of trash in incinerators. When trash is recycled, fewer resources are wasted. Because less trash will be recycled if an incinerator is built, the city should not build an incinerator.

Which one of the following can be properly inferred from the statements above?

(A) All of the city's trash that is not recycled goes into incinerators.
(B) By recycling more trash, the city can stop wasting resources entirely.
(C) The most effective way to conserve resources is to recycle trash.
(D) If the city is to avoid wasting resources, huge amounts of trash cannot be burned in any city incinerator.
(E) If the city does not burn trash, it will not waste resources.

30.2.10. Goswami: I support the striking workers at Ergon Foods. They are underpaid. The majority of them make less that $20,000 per year.

Nordecki: If pay is the issue, I must disagree. The average annual salary of the striking workers at Ergon Foods is over $29,000.

Goswmi and Nordecki disagree over the truth of which one of the following statements?

(A) The average annual salary at Ergon Foods is over $29,000.
(B) Pay is the primary issue over which the workers are striking at Ergon Foods.
(C) It is reasonable to support striking workers who are underpaid.
(D) The striking workers at Ergon Foods are under paid.
(E) It was unreasonable for the workers at Ergon Foods to go on strike.

30.4.13. Joseph: My encyclopedia says that the mathematician Pierre de Fermat died in 1665 without leaving behind any written proof for a theorem that he claimed nonetheless to have proved. Probably this alleged theorem simply cannot be proved, since—as the article points out—no one else has been able to prove it. Therefore it is likely that Fermat was either lying or else mistaken when he made his claim.

Laura: Your encyclopedia is out of date. Recently someone has in fact proved Fermat's theorem. And since the theorem is provable, your claim—that Fermat was lying or mistaken—clearly is wrong.

13. Joseph's statement that "this alleged theorem simply cannot be proved" plays which one of the following roles in his argument?

(A) an assumption for which no support is offered
(B) a subsidiary conclusion on which his argument's main conclusion is based
(C) a potential objection that his argument anticipates and attempts to answer before it is raised
(D) the principal claim that his argument is structured to refute
(E) background information that neither supports nor undermines his argument's conclusion

29.1.20. The price of a full-fare coach ticket from Toronto to Dallas on Breezeway Airlines is the same today as it was a year ago, if inflation is taken into account by calculating prices in constant dollars. However, today 90 percent of the Toronto-to-Dallas coach tickets that Breezeway sells are discount tickets and only 10 percent are full-fare tickets, whereas a year ago half were discount tickets and half were full-fare tickets. Therefore, on average, people pay less today in constant dollars for a Breezeway Toronto-to-Dallas coach ticket than they did a year ago.

Which one of the following, if assumed, would allow the conclusion above to be properly drawn?

(A) A Toronto-to-Dallas full-fare coach ticket on Breezeway Airlines provides ticket-holders with a lower level of service today than such a ticket provided a year ago.
(B) A Toronto-to-Dallas discount coach ticket on Breezeway Airlines costs about the same amount in constant dollars today as it did a year ago.
(C) All full-fare coach tickets on Breezeway Airlines cost the same in constant dollars as they did a year ago.
(D) The average number of coach passengers per flight that Breezeway Airlines carries from Toronto to Dallas today is higher than the average number per flight a year ago.
(E) The criteria that Breezeway Airlines uses for permitting passengers to buy discount coach tickets on the Toronto-to-Dallas route are different today than they were a year ago.

31.2.23. Town councillor: The only reason for the town to have ordinances restricting where skateboarding can be done would be to protect children from danger. Skateboarding in the town's River Park is undoubtedly dangerous, but we should not pass an ordinance prohibiting it. If children cannot skateboard in the park, they will most certainly skateboard in the streets. And skateboarding in the streets is more dangerous than skateboarding in the park.

The pattern of reasoning in which one of the following is most similar to that in the town councillor's argument?

(A) The reason for requiring environmental reviews is to ensure that projected developments do not harm the natural environment. Currently, environmental concerns are less compelling than economic concerns, but in the long run, the environment must be protected. Therefore, the requirement for environmental reviews should not be waived.
(B) Insecticides are designed to protect crops against insect damage. Aphids damage tomato crops, but using insecticides against aphids kills wasps that prey on insecticide-resistant pests. Since aphids damage tomato crops less than the insecticide-resistant pests do, insecticides should not be used against aphids on tomato crops.
(C) The purpose of compulsory vaccination for schoolchildren was to protect both the children themselves and others in the community against smallpox. Smallpox was indeed a dreadful disease, but it has now been eliminated from the world's population. So children should not be vaccinated against it.
(D) The function of a sealer on wood siding is to retard deterioration caused by weather. However, cedar is a wood that is naturally resistant to weather-related damage and thus does not need additional protection. Sealers, therefore, should not be applied to cedar siding.
(E) Traffic patterns that involve one-way streets are meant to accelerate the flow of traffic in otherwise congested areas. However, it would be detrimental to the South Main Street area to have traffic move faster. So traffic patterns involving one-way streets should not be implemented there.

Self-Assessment Tools
key priorities and rhetorical questions

Priorities:
(C) = conclusion, (S) = support, (F) = flaw
(C): M takes courses in wide range
(S): Student body takes courses in wide range
(F): What's true about entire student body may not be right for M

30.2.6 (B)

Questions:
Did you understand the conclusion correctly?
Did you understand the support?
Did you clearly see what was wrong with the reasoning?
Did you eliminate (C), (D), and (E) easily?
Did you see why (A) is not correct?
Did you see why (B) is correct?

Priorities:
(C): Adapting environment for benefit common
(S): Plankton example
Strategy: specific example given to justify point

29.1.12 (D)

Questions:
Did you identify the correct conclusion?
Did you see the general relationship between support and conclusion?
Do you see why (A) is tempting if you identify the wrong conclusion?
Were you able to get rid of (B) and (E) easily?
Do you see what's wrong with (C)?
Do you see why (D) is correct?

Priorities:
(C): Seals aren't causing cod decline
(S): Seals don't eat a lot of cod
(F): Maybe seals impact cod population in another way

28.1.5 (D)

Questions:
Did you understand the conclusion correctly?
Did you understand the support?
Did you clearly see what was wrong with the reasoning?
Did you eliminate (A), (B), (C), and (E) easily?
If not, did you get mixed up about your task during the question (most wrong answers seem to strengthen the argument)?
Was it easy for you to see that (D) was correct?

Priorities:
Principle: Nation can experience economic growth only when confidence balanced with bit of skepticism.
Notice: Stimulus about possibilities—something needed if growth is to happen. Answers are all absolutes. What is the absolute aspect of the principle? If a nation doesn't have confidence balanced with skepticism, it won't experience growth.

28.1.10 (D)

Questions:
Did you understand the principle correctly?
Did you get rid of (A), (B), (C), and (E) easily?
Did you see how your understanding of the principle could be adapted to the nature of the answer choices?
Did you easily see why (D) is correct?

Full solutions on the following pages: 252, 445, 279, 474

Priorities:
(C): Unlikely cancellations due to something other than mechanical problems
(S): 9 cancellations, unlikely mechanical problems with more than 1 or 2 planes
(F): Planes fly multiple times a day—maybe all the cancellations were due to those planes

28.3.19 (A)

Questions:
Did you understand the conclusion correctly?
Did you understand the support?
Did you clearly see what was wrong with the reasoning?
Did you eliminate (B), (C), and (D) easily?
If you were tempted by (E), did you see that is not required for the argument to work?
Do you see why (A) needs to be true for the argument to work?
Can you negate (A) to see that it is necessary?

Priorities:
Discrepancy: why does increase in calcium lead to decrease in recurrance of kidney stones?

31.3.2 (D)

Questions:
Did you focus in on the right discrepancy?
Did you get rid of (A), (B), (C), and (E) because they don't explain the discrepancy?
Do you see why (D) does?

Priorities:
(C): At least one thing about current theory remains unexplained/unproven

30.4.2 (B)

Questions:
Did you identify the correct conclusion?
Did you move on to the answers without thinking about unnecessary issues?
Were you able to get rid of (A), (C), (D), and (E) easily?
Do you see why (B) is correct?

Priorities:
(C): S discourages water conservation
(S): Each house pays modest flat fee to a threshold, and only pay substantial per-use fee above threshold
(F): Assumes threshold is high enough so that most people don't go over it into the expensive cost zone

28.1.15 (C)

Questions:
Did you understand the conclusion correctly?
Did you understand the support?
Did you clearly see what was wrong with the reasoning?
Did you see that (A) doesn't relate to support/conclusion relationship?
Did you see that (B), (D), and (E) don't directly impact conclusion?
Do you see why (C) is correct?

Full solutions on the following pages: 274, 486, 444, 279

Priorities:
(C): All actions are motivated by self-interest
(S): Any action that seems altruistic can be described in terms of self-interest
(F): Just because actions *can be described* in terms of self-interest doesn't mean all actions *are* motivated by self-interest

29.4.18 (B)

Questions:
Did you understand the conclusion correctly?
Did you understand the support?
Did you clearly see what was wrong with the reasoning?
Did you eliminate (A), (C), and (E) easily?
If (D) initially challenged you, do you see that no necessary/sufficient issues are important here?
Did you see why (B) is correct?

Priorities:
Initial read: stimulus is argument about wasting natural resources, incinerators, and recycling.
(A) cannot be proven
(B) doesn't match text/cannot be proven
(C) cannot be proven
(E) doesn't match text/cannot be proven

31.3.10 (D)

Questions:
Did you understand the information in the stimulus correctly?
Did you focus the bulk of your energy on evaluating the answer choices?
Did you clearly understand why (A), (B), (C), and (E) cannot be proven?
Did you see that (D) was attractive enough to investigate carefully?
Did you see the proof for (D) in the first sentence of the stimulus?

Priorities:
(C): Manager is also to blame
(S): Aware of contractor's typical delays and should have planned for this contingency
Principle: since manager was aware and should have prepared, he is also to blame

29.1.19 (A)

Questions:
Did you understand the conclusion correctly?
Did you understand the support?
Did you clearly see the relationship between support and conclusion?
Do you see how (B), (C), and (D) don't relate to support/conclusion relationship?
Do you see that (E) misrepresents the conclusion?
Do you see why (A) is correct?

Priorities:
Find overlap/disagreement: pay

30.2.10 (D)

Questions:
Did you see the correct overlap/disagreement?
Did you eliminate (A), (B), (C), and (E) with confidence?
Do you see why (D) is correct?

Full solutions on the following pages: 244, 470, 265, 481

30.4.13 (B)

Priorities:
(C): Likely Fermat either lying or mistaken when he said he proved certain theorem
(S): Probably alleged theorem can't be proved
Role: used to support the conclusion

Questions:
Did you understand the conclusion correctly?
Did you understand the support?
Did you clearly see the role correctly?
Were you able to get rid of (A), (C), (D), and (E) easily?
Did you see how (B) was correct, and represents a more specific version of the role noted in the priorities?

29.1.20 (B)

Priorities:
(C): On average, people pay less today for tickets than they did a year ago
(S): 90% of sales now are discounted/only 50% discounted a year ago/full fair has remained constant
(F): Doesn't factor in the amount of discount for tickets that are discounted

Questions:
Did you identify the correct conclusion?
Did you understand the support?
Did you clearly see what was wrong with the reasoning?
Did you know you need an answer that makes the conclusion completely valid?
Were you able to get rid of (A), (C), and (E) easily?
If tempted by (D), could you reason through why it wasn't relevant?
Do you see how if (B) is true the argument would be valid?

31.2.23 (B)

Priorities:
(C): Shouldn't prevent skateboarding at River park
(S): Only reason to prevent is to protect children from danger, and if they can't skate there, the children will skate somewhere else
Pattern of Reasoning: should pick less-than-ideal solution because it is better than alternative

Questions:
Did you understand the conclusion correctly?
Did you understand the support?
Did you see clearly the relationship between support and conclusion?
Did you see that (A) compares one issue with another, and eliminate it?
Did you see that (C) has a different reasoning structure and eliminate it?
Did you see that (D) has a different reasoning structure and eliminate it?
Did you see that (E) has a different reasoning structure and eliminate it?
Do you see how (B) offers up one option as less bad than another?

Notes:

Full solutions on the following pages: 445, 266, 449

35 READING COMPREHENSION question strategies

In the first swatch of Reading Comprehension lessons, we focused on the underlying design of LSAT passages and the reading habits that best aligned with that design. In this swatch of lessons, we'll finish the loop by discussing how to align effective reading habits with an effective problem-solving process.

A master locksmith needs to know about two things really, really well in order to be good at his job: keys and locks. His success consistently depends on his ability to bring these two things together. A Reading Comprehension master needs to know two things really, really well: the reasoning structure of passages, and the tasks that specific questions present. On test day, your success will be a consequence of how well you bring these two skills together.

Answers are correct when they are consistent with the text and match the task that questions present. Wrong answers are wrong because they either misrepresent the given text or don't match the given task

Answers are correct when they are consistent with the text and match the task that questions present. Wrong answers are wrong because they either misrepresent the given text or don't match the given task. Text and task are the two fundamental priorities of Reading Comprehension. Having a clear sense of both makes it far easier to anticipate and confirm right answers. And perhaps even more importantly, having a clear sense of both makes it far easier to anticipate and eliminate wrong answers.

Hopefully, you feel that it's getting easier and easier for you to recognize and prioritize reasoning structure as you read a passage. In this swatch of lessons we will continue working on our reading skills but we will also work on developing a simple, clear, and intuitive understanding of the specific tasks that the various questions present, and we'll work on developing problem-solving habits that best align with those tasks.

Most of this lesson is devoted to specific instructions for each type of question that appears in the Reading Comprehension section. You'll see that there is great overlap among the question types, but I think an easy way to think about them, as a whole, is that they represent different possible combinations of just a few characteristics.

Imagine a wardrobe of just five shirts and four pairs of pants. How many different shirt-pants "outfits" could you put together? Twenty—almost enough for a full month of work days. Reading Comprehension questions work in a similar way—there are maybe about fifteen or so question types that we will discuss, but when you think about them as a whole you see that they are all just different combinations of a few characteristics.

As you read through the question descriptions to come, and as you focus on refining your problem-solving process in the Reading Comprehension work to come, there are two simple questions you can ask yourself in order to understand the task that a specific test question presents: what is the genre of the question, and what is the scope? Let's discuss genre and scope in further detail.

One: What Is the Genre of the Question?

All questions are designed to test your understanding of three primary issues: the reasoning structure of the passage, the opinions presented in the passage, or the information presented in the passage. We will discuss these three issues as the "genres" of questions. All question stems can be defined in these terms, and if you know what to read for, the question stem will always tell you exactly what the genre is.

The question stem will specifically ask about the structure of the passage or the purpose of a component of a passage (reasoning structure); or it will make direct mention that it is about an opinion, either the author's or someone else's; or it will state directly that it is testing your ability to correctly identify a specific piece of information in the text and correctly understand it ("according to the text" is an example of a common marker of this). When you first read a question and you think about what type it is, and what type of task it is presenting to you, the "genre" of the question should be your primary consideration.

The most common questions are those that ask you directly about your understanding of the reasoning structure of the passage. These questions test whether you can identify the main points, describe the organization of the passage, or recognize the roles that certain parts of the passage—whether they be individual phrases or entire paragraphs—play. These questions are most directly tied to the type of reading experience that we've encouraged in this book. Typically, if you understood the overall structure of the passage well, these will be some of the easiest questions you'll face. If you had a lot of difficulty understanding or recognizing the overall structure of the passage, these can feel like the most difficult questions.

Questions that ask about opinions are very much related to questions that ask about structure. This relationship is natural and unavoidable, for often the opinion that an author has, or the opinions that an author presents, drive the purpose of the passage, and for any good writer (and most passages you will read on the LSAT are written by good writers), purpose drives structure—that is, the design of the passages is intended to serve its purpose.

The most common opinion questions are those that relate to the author's opinion. The reading strategies that we've practiced thus far are an ideal match for the design of these questions. For certain passages, the author's opinions are obvious, and for others it's far more subtle. Regardless, when it comes time to answer questions, a correct understanding of author opinion will be absolutely necessary.

Questions that ask about other opinions mentioned in the passage (that is, any opinion other than that of the author) are also common. These opinions are often those of "critics" or "supporters," and are typically directly related to the main points of the passage. When we get the rare Reading Comprehension question that requires us to use our critical reasoning skills—questions that ask us to think about what might strengthen or weaken a point that is being made—these questions are typically linked to the non-author opinions presented in the passage.

The last class of questions is designed to test your ability to understand the information presented in the text. For some of these questions, you will be asked to identify information in the text and find the answer that best matches that information. For others of these questions, you will be asked to identify information in the text and make an inference off of that information.

Even these "detail" questions are designed to reward those who have a strong understanding of overall reasoning structure. Often, the key challenge of some of these questions is identifying the relevant information—the clues to help you do this will always be based on reasoning structure. Furthermore, an understanding of the main points of the passage will make obvious certain wrong choices that would not be obvious otherwise.

Two: What Is the Scope of the Question?

The other defining characteristic of a question is its scope: Is it a question about the passage as a whole, or is it a question about just one sentence, phrase, or word in the passage? Many answer choices are incorrect, at least in part, because they do not match the scope of the question. More importantly, the strategies you want to use for thinking about right and wrong answers for a question that asks about the entire passage are very different from what you would use for thinking about right and wrong answers for a question about the definition of, say, just one word. You want to work on developing thinking habits that align best with the specific tasks that questions present.

Certain question stems are designed to leave the scope uncertain. Imagine a question stem that states, "The author would most likely agree that..." The right answer could relate to the passage as a whole, or it could relate to a very specific opinion about a secondary issue. In this case, as in many others presented on the LSAT, the best way to deal with the uncertainty is to remain uncertain—whether the question is about specifics or generalities will be revealed once you go into the answer choices. We'll discuss specific strategies for such questions in just a bit.

Starting on the next page, we will discuss each specific type of question that can appear in the section. We'll do so in terms of actionable steps—what you ought to think about and do before you go into the answers, what you ought to look for in eliminating wrong choices, and how you should define your expectations for the answers you select. If I've done my job as a teacher well, the suggestions should seem logical and in line with the mindset for this section that I've encouraged thus far. Keep in mind that your goal, at the end of the day, is to have an effective process for each question type that is completely intuitive; that is, a strategy you implement without conscious effort, a strategy you implement because that's how it makes natural sense to think about the task at hand.

Strategies for Structure Questions

Main Point / Main Purpose (most common)

Which one of the following most accurately expresses the main idea of the passage? The primary purpose of the passage is to...

Technically speaking, main idea and primary purpose are not the same thing. When it comes to LSAT questions, however, the commonalities between these two are far greater than the differences, so much so that you can think of both types of questions as essentially requiring the same thought process. In both instances, we are looking for the answer that best represents the passage as a whole, and best indicates why it was written.

Main point questions are the most common questions in the section, and also the questions for which your initial read should best prepare you. If you've understood the passage well, you should be able to go into the answer choices with a fairly clear set of expectations about the right answer. If you have any fuzziness about the passage, make sure you do a quick paragraph-by-paragraph scan of the text before going into the answer choices.

RIGHT ANSWERS are answers that best represent the entirety of the passage. For many questions, the right answer will be written in much the same way that you might think about the passage yourself. For certain, more challenging questions, right answers will commonly fall short of your ideal. They may slightly overemphasize one part of the passage over another, or they may leave as secondary something you felt was prominent. The right answer may also present what is, in your view, an overly vague or simplified version of the text. What the right answer will never, ever do is contain incorrect information. It will not switch around a detail that is in the text, and it will not assign an opinion that is inaccurate. If you know you are dealing with a tough main point question and you have an answer that isn't close to the ideal you have in your head but does represent most of the passage and doesn't have any clear, egregious issues, it could very well be the right answer.

WRONG ANSWERS are the key to your success on main point questions. Right answers for tough questions are tough to spot; wrong answers are consistently easier to see as being incorrect. Wrong answers for main point questions commonly have one of two issues. The first is that the answer will take a particularly narrow component of the passage—say, the point of a supporting paragraph—and hold that up as the main point. The second is that the answer will have an error—a detail that doesn't match, or goes beyond, the information in the text. Often these distortions are quite obvious. So, for main point questions, make sure you are lenient on "just okay" answers at first, and really focus on finding reasons why wrong choices are wrong.

General Organization (very uncommon)

Which one of the following most accurately describes the organization of the passage?

Of course, thinking about the general organization of the passage is critical for answering many questions, but historically very few questions have asked about the overall structure directly. Typically, the answers to these questions will break up a passage in terms of its paragraphs, and so you will want to review the purpose of each paragraph quickly before going into the answers.

RIGHT ANSWERS will represent each part of the passage accurately. They are usually written as a sequence of elements, typically meant to roughly mimic the organization of the passage, and you want to be able to go through that list without feeling uncertain about any one of the elements on it.

WRONG ANSWERS are what define this question, just like they did the main point questions. Wrong answers will clearly state the wrong purpose for at least one component of the passage. Your first time through the answer choices, you should focus all of your energy on finding these inconsistencies and eliminating answers based on these inconsistencies. Right answers often won't feel perfect, and the key to always getting this type of question right is being able to spot the defining characteristics of wrong choices, which tend to be far more obvious.

Purpose of a Paragraph (common)

What is the main purpose of the fourth paragraph? The main purpose of the third paragraph is to...

These questions are very similar to other structure questions in that the quality of your initial read will, in large part, determine whether or not the question feels difficult. Thus, if you had a strong initial read, you should, to a large degree, be able to anticipate the substance of the right answer.

When asked this type of question, think about how the paragraph relates to the passage as a whole and to the paragraphs before and after it. Make sure you have a clear sense of what you expect in the right answer before moving forward.

RIGHT ANSWERS will match, in substance if not in wording, your understanding of how the paragraph fits into the reasoning structure of the passage. The answer may discuss this role from a slightly different vantage point than you might expect, or it may use challenging wording, so be open, at first, to "just okay" answers.

WRONG ANSWERS are again the key to answering this type of question quickly and confidently. All wrong answers will be absolutely wrong—they will represent the role in a clearly incorrect way or discuss something that isn't in the passage. Focus most of your energy on finding reasons why answers are wrong.

Purpose of Word or Phrase (very common)

The author most likely describes the theory as "X" in order to... The primary function of the reference to "X" is to... Which one of the following most accurately expresses the primary purpose of the sentence in lines X - X ?

These word, clause, or sentence purpose questions, like general and paragraph purpose questions, are direct tests of your ability to see reasoning structure. For almost all such questions, the challenge will not be in identifying the relevant information—the question stem will either give it to you, or it will be obvious where the important information is. The key work to be done has to do with thinking about the purpose of that component relative to the passage as a whole.

As with other structure questions, you should be able, to a large degree, to anticipate the substance, if not the wording, of the correct answer. However, don't take this understanding and simply look for matches in the answers. A far more consistently effective method is to first use this understanding to eliminate incorrect choices. If you develop the correct habits, eliminating incorrect choices becomes far faster and more accurate than simply trying to identify correct choices.

RIGHT ANSWERS should, almost always, match the substance of what you anticipated, if you read the passage correctly and understand the purpose of the word or phrase correctly. However, keep in mind that, especially as questions get more difficult, right answers are likely to approach that explanation of the role from a more obscure angle. Imagine a text that presents two contrasting theories—information that clearly seems to support one theory could also correctly be said, often, to oppose the other theory, and the answer may very well represent this relationship from the less obvious perspective. The most common roles that answers play are those that relate to the main points—supporting, opposing, showing an application, and so on. Right answers that actually represent main opinions are less common, and right answers that relate to background information—because background information has little relevance on reasoning structure—are almost unseen.

WRONG ANSWERS are all clearly going to be wrong for at least one of two reasons: they will clearly misrepresent the role that the information plays, or they will misrepresent the actual passage in some way (i.e., change the subject matter). The most attractive wrong choices will take a correct stance and embellish it, so that if, say, the author uses an experiment to weaken a theory, an answer might take it farther and say the experiment makes the theory "obsolete." Down to two attractive choices, choose the one that, even if a bit more vague or awkward, has less such embellishment.

Contextual Definition (very common)

The phrase "X" as used in line Y most nearly means... In using the term "X" the author suggests that "Y" is considered to be...

At first it may seem that this question doesn't quite belong in the "structure" section. The reason it belongs here is because the thought process required for this type of question is very much in line with the thought process required for other structure questions, in particular the purpose questions just described.

When questions ask that you define a word or phrase as it is being used in the passage, the manner in which it is used is almost always, in some way, related to the general reasoning structure of the passage. When you formulate your own thoughts about the meaning of the word or phrase, it is far easier to do so when you understand why the author has placed the sentence where he or she has.

The challenge of these questions will not be in the hunt for information, since the question stem will give you the element in question as well as the location. Your primary task is to develop as clear a sense of the definition as you can before going into the answers, again, using your understanding of reasoning structure as your main guide. Relative to other structural questions, the right answer is a bit more obvious, and the wrongs a bit less so, so you need not feel as reliant on your elimination process as you should for the other types of structure questions we've discussed on these two pages.

RIGHT ANSWERS will hopefully match, fairly closely, the thoughts you had, and in any case—this is especially helpful to know if you have trouble pre-phrasing an answer—the right answer should make sense in terms of the role that phrase or sentence plays relative to the passage as a whole. For example, imagine that you just can't figure out the meaning of a particular word, but you do know that it's in a group of sentences meant to go against a certain theory. Look for that answer that, once you plug that definition in, allows that phrase or sentence to function in the role you expect it to.

WRONG ANSWERS for these questions are created a few different ways. Authors put in answers that would match correct meanings in different contexts, and they put in answers that match the substance of other parts of the passage (but not the part in question). Many answers are wrong because they would clearly give the sentence a purpose different from that which the author intended. As always, a strong sense of author intention and overall structure is extremely helpful here.

Strategies for Author Opinion Questions

Author Opinion (very common)

The author of the passage would be most likely to agree with which of the following statements? The author's feelings toward X (main subject) can best be described as...

The author's view of the subject matter is always intrinsically tied in to the reasoning structure of the passage, and a strong understanding of the author's views is a necessary component of a strong read. If you've read the passage well, you should be well prepared to answer most author's opinion questions quickly and with confidence.

Keep in mind that vague question stems can be referring to the author's general opinion (more common) or a more specific opinion that the author holds (less common). You won't know until you evaluate the answer choices.

RIGHT ANSWERS **will be broad and safe, and in general should match fairly closely the thoughts you have in your own head. The "language" of opinions—that is, the way in which answer choices describe various opinions, is a bit less complex than the "language" of reasoning structure, and so the challenge of matching your thought process to their wording should be less difficult.**

Keep in mind that for a minority of passages, the author stays objective and has no opinion—it's important to note when passages are written in this manner (you will still get opinion questions). When the author does have an opinion, it will tend to be subtle and mitigated. An answer that is more vague or more "politically correct" than you would write is typically okay. An answer that goes beyond what the author said is typically not going to be okay.

WRONG ANSWERS **are very often on the complete opposite side of the fence—that is, wrong answers, even attractive ones, often state that the author has the exact opposite opinion of the one he does. Other wrong answers will embellish and make more extreme the author's views, or discuss issues that are not discussed in the passage.**

Specific Author Opinion (common)

Based on the passage, with which one of the following statements regarding X would the author agree?... Which one of the following best describes the author's attitude toward X?...

When you are asked general opinion questions, "no opinion" is sometimes a legitimate answer. However, when you are asked about the author's opinion toward a specific component, "no opinion" is not going to be a common part of your thought process. These questions concern things about which the author definitely has an opinion. For the hardest of these questions, the author's opinion will be extremely subtle—perhaps only evident from just one modifier, placed somewhere you didn't expect it (that's part of the reason why you want to pay careful attention to any clue of any author opinion as you read the passage). The challenge is to dig that opinion out, and understand it as clearly as you can before going into the answers.

RIGHT ANSWERS **will typically involve ideas or issues that the author has. If the author's opinion is clear and absolute, expect the answer to represent that, and if the author's opinion is subtle and mitigated, the answer should represent that as well.**

WRONG ANSWERS **will often clearly misrepresent the author's opinion, and a strong understanding will often help you get rid of three or four of these answers quickly. More attractive wrong choices will misrepresent the degree of the author's opinion, or in very sly ways, introduce information that is a bit different from the information presented in the passage. Look for extreme signs of wrong answers first—down to two choices, look to eliminate one that goes too far or contains a detail not in the passage.**

Strategies for Other Opinion Questions

Other Opinions (somewhat common)

The critic mentioned in the second paragraph would be most likely to agree with which of the following statements?... X's view differs from Y's in that...

Almost always, the other opinions in question are related to the central issue of the passage. Therefore, these are questions for which, most of the time, you should have a very good sense of what to expect in a right answer. Still, unless you are absolutely certain of your understanding of the opinion, it's always a good idea to go back into the text to reread the information; if you have a pretty good sense of the opinion already, the reread should go very quickly. The reread may save you some time eliminating wrong choices and selecting the right one.

As always, pay particular attention to the wording of the question, for it will give you insight into what to look for in right and wrong answers. If, for example, the question involves the phrase "would most likely agree," we know that we won't get "slam dunk" evidence to connect the text and right answer. Utilizing those types of nuances is critical for success on difficult questions.

RIGHT ANSWERS should be ones that you can do a fairly good job of anticipating—again, because the opinions in question will generally be related to the main points of the passage, they should be fresh in your mind. Even if you reread the relevant text before going into the answers, it's still a good idea to confirm the right answer with the text in the passage—this should be a quick step, and it's good for your accuracy.

WRONG ANSWERS will commonly have one of two characteristics—they will either represent the opposite of the opinion in question (as you can imagine, these answers generally align with the *other* opinions in a passage) or they go beyond the information in the text. To think of it another way, wrong answers punish those who confuse the opinions in a passage, and they confuse those who don't pay attention to specific details. Use your general understanding of how the opinion relates to the passage to get rid of obvious wrong choices (there will always be a few), then use specific necessary details to eliminate attractive wrong choices that just miss the mark in terms of subject matter or meaning.

Strengthen / Weaken (somewhat common)

Which of the following, if true, would weaken the author's argument against X? Each of the following could be used as support for X's view EXCEPT:

Strengthen and weaken questions are unique among Reading Comprehension questions in that they require you to use your reasoning ability. In order to see if an answer strengthens or weakens an argument or an opinion, you need to first evaluate that argument or opinion critically, just as we have for Logical Reasoning strengthen and weaken questions. Other Reading Comprehension questions do not require us to think critically, and, in fact, other questions are sometimes specifically designed to reward an objective, rather than judgemental, read of the material. Make sure you have a very clear sense of the argument or conclusion before going into the answers, otherwise you will not have a good gauge for differentiating between right and wrong choices.

RIGHT ANSWERS will clearly support or weaken an opinion presented in the text (keep in mind the difference between impacting an opinion and impacting an argument, the latter of which involves the use of the specifically mentioned evidence to reach the given conclusion).

WRONG ANSWERS will either play an incorrect role (commonly the opposite, such as strengthen when we are looking for a weaken answer, and so on) or an unclear role relative to the opinion.

Illustrate (not common)

Which of the following is an example of X? Which of the following scenarios best illustrates the dangers mentioned by the critics?

These questions are also unique among Reading Comprehension questions, not because they require you to be critical (they don't) but rather because they require you to relate your understanding to the answer choices. Before you evaluate the answers, say to yourself in your own words what exactly the opinion in question is.

RIGHT ANSWERS will illustrate the opinion or issue. They may not be slam-dunk illustrations, and they may not match the subject matter of the text, but they will illustrate nonetheless. The one thing a right answer definitely will not do is go out on a limb and present an idea more strongly or more specifically than was presented in the text.

WRONG ANSWERS will represent a misunderstanding of the original opinion. Commonly, wrong answers will illustrate the opposite of the original opinion. On a more subtle level, attractive wrong choices will just be different because of a small difference in degree or a small but significant difference in detail. As always, work from wrong to right to give yourself the best chance to get the question correct.

Strategies for Detail Questions

Identify the Detail (very common)

Which of the following statements about X is made in the passage?... According to the passage, X is a factor in Y because... Which of the following is mentioned in the passage? The passage contains information to answer which of the following questions?

These questions are designed to test two things—your ability to identify information, and your ability to understand it. Certain questions give you a hint about information that is located in the question stem—the first and second examples mentioned above are examples of these types of questions. If you are given any such hint, you want to make sure you read the relevant text (and the parts immediately adjacent) before evaluating the answers. For these questions, working from wrong to right is a bit less important—if you find a great match and you are certain of that right answer, you can quickly scan the other choices, then make your selection. If the question stem gives no clues as to the position of the information (such as the last example), you should go back to leaning on your elimination skills. You want to run through the answer choices first and eliminate the obviously wrong choices (there will always be obviously wrong choices) then go back into the text to try and match the one or two most attractive choices to the information in the text.

RIGHT ANSWERS will very closely match the text. Notice the wording of all of these types of questions—"according to," "directly mentioned"—this is no accident—these questions are testing your ability to correctly understand without embellishing. The right answer will always require no significant assumptions or inferences.

WRONG ANSWERS will often stray from the text, and the most attractive wrong choices will stray in very reasonable ways. For questions that give you a hint of location, wrong answers may bring up things mentioned in incorrect parts of the passage.

Infer from a Detail (somewhat common)

The passage suggests which of the following is true about the relationship between X and Y? In the second paragraph, the author implies that X is...

These questions are very similar to identification questions but the differences between the two questions are quite significant. Like identification questions, questions that require you to infer from a detail commonly require that you find the detail and understand it contextually and correctly. However, for identification questions, the right answer should require little inference. For inference questions, the right answer, by nature, will require an inference.

RIGHT ANSWERS will not be directly stated in the text—otherwise, no inference would be required. However, for many questions, just as in Logical Reasoning, the inference required is a very small one. However, keep in mind that right answers often do not have the stringent burden of proof that Logical Reasoning answers do. Basically, you want an answer that is very reasonable to infer based on the given text, and commonly one that nearly matches the given text, but isn't exactly the same as the given text (there won't actually be an answer that is, but many wrong choices are written to appear that way).

WRONG ANSWERS are commonly easy to recognize because even for these detail questions they misrepresent in some way the main thrust of the passage or the author's opinion. All wrong answers are ones that, obviously, are not inferable, and you want to use the question "does the part of the text prove this or not" as your primary gauge. As with many identification questions, often the right answer will jump out at you faster than the wrong ones will—if that's the case, don't fight it. Confirm that right answer, then quickly scan for wrongs.

Infer from ...? (not common)

The passage suggests that... Which of the following could we infer? The information in the passage is sufficient to infer which of the following?

These inference questions are uncertain in terms of scope—based on the question stem, it's unclear whether the inference is related to the passage as a whole or to one or two lines. For these questions, you want to do a quick scan of answer choices to eliminate obvious wrongs (there will always be a few) before you think about what can actually be inferred from the text. During this initial phase, you should get a good sense of whether the question is asking for a specific type of inference (more common) or a more general passage-as-a-whole-type inference (less common). If it's the former, work to identify the relevant specific text and do a careful word-by-word check to insure that no great leaps have been taken. If it's the latter, treat it much like a main point question and look for an answer that best represents the author's main points and general opinion. Check each component of the most attractive choice or two against the text to make sure that various parts of the passage can be used to support the answer.

RIGHT ANSWERS will require very little inference—and typically the more specific the text in question, the less inference required. Unlike Logical Reasoning, right answers are very rarely "creative," unexpected truths one can pull from the text. Rather, right answers are far more typically inferences that fall in line with the thought processes most relevant to the text.

WRONG ANSWERS will require too much inference (duh), or they will often give themselves away by misrepresenting the text. Use your understanding of passage structure and detail to get rid of obvious wrong choices before you do the more subtle work of thinking about inferences that are or are not reasonably supported.

Find an Analogy (not common)

The relationship between X and Y described in the passage is most like... As described in the passage, X is most similar to which one of the following?

Questions that ask you to find an analogous situation or relationship can either refer back to a secondary detail in the original passage, or to the main subject matter of the original passage. The reason we categorize it here is because the key to success is to have a correct understanding of the original material.

RIGHT ANSWERS will not always be perfect, and sometimes you will have to pick an analogous situation that doesn't have all of the exact nuances that you felt the original component had. For the answer to be somewhat vague or incomplete is acceptable for more difficult questions, though you shouldn't expect it to be the norm.

WRONG ANSWERS are what really define these answer choices. Each wrong answer will have something that is definitively flawed with it. They will either not match the situation or include some extraneous modifier or modification. Down to two answers, follow the Price is Right "closest price but not over" model—look for an answer that matches best the original situation, but it's better to "undermatch" than it is to "overmatch." Avoid answers that go too far.

The General Problem-Solving Process

As your teacher, my goal for this lesson was to impress upon you two seemingly incongruous truths. For one, each type of question is unique and it's important that you pay attention to the specific task that each question presents. But at the same time there is great commonality to these questions, and you don't need to (and shouldn't) go into the section thinking you have fifteen different problem-solving strategies to employ—you should see all questions as different combinations of just a few basic characteristics.

Read each question stem carefully. That's a given. As you do so, you should be thinking about two general issues: Is this question about the passage as a whole, or one specific component; and is this question testing my understanding of reasoning structure, opinions, or details? These two thoughts need not take place on a very "conscious" level—hopefully, by the time you go into the exam, it will simply be habit that you define the challenges presented in the question stem according to these two characteristics.

Your question stem should tell you one more thing: at which points you should expect to go back into the text. For certain questions, we should expect to go into the text and find an "answer" before looking at the answer choices. For other questions, there is very little to do until we see what the answers themselves are.

For all questions, your ideal problem-solving process should involve eliminating the four wrong answers before selecting the right one. For all types of questions, wrong answers are commonly wrong because they misrepresent the substance or purpose of the text. Some of the more attractive wrong choices are attractive because they match the text well, but don't match the task presented in the question stem well.

The key to strong elimination skills is a clear sense of passage structure *and* task. If you know the passage and you can keep in mind the genre and scope of the question, most of the time at least three wrong choices should be clearly incorrect.

The right answer is right if it matches what you know of the text, and if it fits the task presented in the question stem. For most questions, I suggest you take the time to find specific information in the original passage to confirm the right choice.

For most test takers, time constraints prevent them from using the "ideal" process to solve every question. When timing is a concern, you may need to select an answer you think is right without getting a chance to eliminate wrong choices—that's okay, but do keep in mind that more time spent eliminating will increase your accuracy. A big key to not having timing issues is not getting "stuck" on any one question. If, after the elimination and selection process, you can't whittle it down to just one answer, do not allow yourself to spin your wheels. Either restart the entire question (if you have the time) or do your best to find something wrong or something right, force yourself to pick an answer, and move on.

Instructions for the drill starting on the following page:

Starting on the next page are two passages, each with their full complement of questions. The questions, however, have been organized for you by genre, so you will first handle all reasoning structure questions, then all opinion questions, then all detail questions, in order to get a better sense of how these genres are different from one another. Solutions follow each passage and question set.

For this exercise, pay the most careful attention to the question stems—make sure you work to develop a habitual sense of their scope and genre. Practice utilizing the task presented in conjunction with your understanding of the passage to eliminate wrong choices. My suggestion is to time yourself, but worry less about time for this drill. However, as I advise in the column to the left, do always practice not getting stuck on any one particular question.

Drill: Questions in Categories

For some years before the outbreak of World War I, a number of painters in different European countries developed works of art that some have described as prophetic: paintings that by challenging viewers' habitual ways of perceiving the world of the present are thus said to anticipate a future world that would be very different. The artistic styles that they brought into being varied widely, but all these styles had in common a very important break with traditions of representational art that stretched back to the Renaissance.

So fundamental is this break with tradition that it is not surprising to discover that these artists—among them Picasso and Braque in France, Kandinsky in Germany, and Malevich in Russia—are often credited with having anticipated not just subsequent developments in the arts, but also the political and social disruptions and upheavals of the modern world that came into being during and after the war. One art critic even goes so far as to claim that it is the very prophetic power of these artworks, and not their break with traditional artistic techniques, that constitutes their chief interest and value.

No one will deny that an artist may, just as much as a writer or a politician, speculate about the future and then try to express a vision of that future through making use of a particular style or choice of imagery; speculation about the possibility of war in Europe was certainly widespread during the early years of the twentieth century. But the forward-looking quality attributed to these artists should instead be credited to their exceptional aesthetic innovations rather than to any power to make clever guesses about political or social trends. For example, the clear impression we get of Picasso and Braque, the joint founders of cubism, from their contemporaries as well as from later statements made by the artists themselves, is that they were primarily concerned with problems of representation and form and with efforts to create a far more "real" reality than the one that was accessible only to the eye. The reformation of society was of no interest to them as artists.

It is also important to remember that not all decisive changes in art are quickly followed by dramatic events in the world outside art. The case of Delacroix, the nineteenth-century French painter, is revealing. His stylistic innovations startled his conditions that were already coming into being as a result of political upheavals that had occurred in 1830, as opposed to other artists who supposedly told of changes still to come.

Practice Test 29, Passage 1

STRUCTURE

1. Which one of the following most accurately states the main idea of the passage?

(A) Although they flourished independently, the pre-World War I European painters who developed new ways of looking at the world shared a common desire to break with the traditions of representational art.
(B) The work of the pre-World War I European painters who developed new ways of looking at the world cannot be said to have intentionally predicted social changes but only to have anticipated new directions in artistic perception and expression.
(C) The work of the pre-World War I European painters who developed new ways of looking at the world was important for its ability to predict social changes and its anticipation of new directions in artistic expression.
(D) Art critics who believe that the work of some pre-World War I European painters foretold imminent social changes are mistaken because art is incapable of expressing a vision of the future.
(E) Art critics who believe that the work of some pre-World War I European painters foretold imminent social changes are mistaken because the social upheavals that followed World War I were impossible to predict.

4. The author presents the example of Delacroix in order to illustrate which one of the following claims?

(A) Social or political changes usually lead to important artistic innovations.
(B) Artistic innovations do not necessarily anticipate social or political upheavals.
(C) Some European painters have used art to predict social or political changes.
(D) Important stylistic innovations are best achieved by abandoning past traditions.
(E) Innovative artists can adapt themselves to social or political changes.

5. Which one of the following most accurately describes the contents of the passage?

(A) The author describes an artistic phenomenon; introduces one interpretation of this phenomenon; proposes an alternative interpretation and then supports this alternative by criticizing the original interpretation.
(B) The author describes an artistic phenomenon; identifies the causes of that phenomenon; illustrates some of the consequences of the phenomenon and then speculates about the significance of these consequences.
(C) The author describes an artistic phenomenon; articulates the traditional interpretation of this phenomenon; identifies two common criticisms of this view and then dismisses each of these criticisms by appeal to an example.
(D) The author describes an artistic phenomenon; presents two competing interpretations of the phenomenon; dismisses both interpretations by appeal to an example and then introduces an alternative interpretation.
(E) The author describes an artistic phenomenon; identifies the causes of the phenomenon; presents an argument for the importance of the phenomenon and then advocates an attempt to recreate the phenomenon.

OPINIONS

2. The art critic mentioned in lines 19-20 *(end of second paragraph)* would be most likely to agree with which one of the following statements?

(A) The supposed innovations of Picasso, Braque, Kandinsky, and Malevich were based on stylistic discoveries that had been made in the Renaissance but went unexplored for centuries.
(B) The work of Picasso, Braque, Kandinsky, and Malevich possessed prophetic power because these artists employed the traditional techniques of representational art with unusual skill.
(C) The importance of the work of Picasso, Braque, Kandinsky, and Malevich is due largely to the fact that the work was stylistically ahead of its time.
(D) The prophecies embodied in the work of Picasso, Braque, Kandinsky, and Malevich were shrewd predictions based on insights into the European political situation.
(E) The artistic styles brought into being by Picasso, Braque, Kandinsky, and Malevich, while stylistically innovative, were of little significance to the history of post-World War I art.

DETAILS

3. According to the passage, the statements of Picasso and Braque indicate that

(A) they had a long-standing interest in politics
(B) they worked actively to bring about social change
(C) their formal innovations were actually the result of chance
(D) their work was a deliberate attempt to transcend visual reality
(E) the formal aspects of their work were of little interest to them

6. According to the author, the work of the pre-World War I painters described in the passage contains an example of each of the following EXCEPT:

(A) an interest in issues of representation and form
(B) a stylistic break with traditional art
(C) the introduction of new artistic techniques
(D) the ability to anticipate later artists
(E) the power to predict social changes

Solution

SUMMARY

P1 - Main point: painters developed art some have described as prophetic. Styles were varied but are all different from old styles.

P2 - Support for/expansion of main point: styles so novel that these painters are said to predict the future. Claim that this is what gives paintings their value.

P3 - Background: artists dream of future, as many others do. Second main point/author's opinion: artists are forward thinking in their style, not in their view of the world. Support/expansion: Picasso and Braque concerned with issues of representation, not commentary on the world.

P4 - Information that goes against the first main point: not all changes in art are followed by changes in life. Example to support: the painter Delacroix.

COMMENTS

We're given a main point right away, albeit with a bit of background around it to distract us, and with a bit of vagueness in the term "some." Then the paragraph goes on to discuss something that feels, perhaps, somewhat indirectly related to the idea that the artists were prophetic—that their styles were a break from tradition.

The second paragraph brings these concepts together more clearly—the novelty of the styles is part of what makes them (perhaps) prophetic. And the paragraph ends with more support for the point the passage began with.

Still, at this point, many readers might anticipate a counterpoint coming. Language such as "some have described...," and "even goes so far as to claim...," while certainly not definitely signs of an opinion, hint that there is a flip side to things. When the author starts the third paragraph with "No one will deny," a lot of experienced readers will feel a "but..." coming on, and indeed the next sentence gives us a counterpoint, which is clearly the author's point of the view. The forward thinking was about art, not political or social trends. The rest of the third paragraph gives us more support for that point (and you can't get more authoritative, in the art world, than Picasso).

The final paragraph gives us information that is meant to serve as a final bit of evidence against the idea that the artists were prophetic. It's an awkward paragraph, and the reasoning doesn't completely go together, but that matters very little—the purpose of the paragraph is simple enough to understand.

1. There were two contrasting main points presented: that this art was prophetic in terms of social change, or that it was simply innovative in terms of actual artistic technique. The author is in agreement with the latter view, and we want an answer that represents this general understanding best.

Elimination: (A) relates to some of the components in the passage, but doesn't match the main points in any way—a shared common desire to break apart from tradition is not the main thrust of the passage. (A) can be quickly eliminated. (B) sounds complicated, but similar to what we are expecting. Let's leave it. (C) puts the author on the opposite side of the issue and can be quickly eliminated. The latter part of (D) is very general and goes well beyond the scope of this passage, and so (D) can be quickly eliminated. The latter part of (E) does not match the text and so (E) can be quickly eliminated.

Selection: Let's return to the only remaining answer, (B), and check it word for word. The wording in (B) is a bit more absolute, perhaps, than that in the text ("cannot" versus "should"), but otherwise it's a pretty good match for what we expected. Since we've confidently eliminated the other four answers, we can pick (B) and move on. **(B) is correct.**

4. It's difficult to understand exactly what the phrase "his stylistic innovations startled his conditions" is supposed to mean, but we do know that his story is meant to serve as evidence against the "prophetic" opinion. We can go into the answers with that in mind.

Elimination: The "usually" in (A) is too strong, and this does not match what we saw as the role it plays relative to the passage as a whole. (B) is exactly what we anticipated—let's leave it. (C) is not what Delacroix is meant to represent, but rather the opposite. Both (D) and (E) have nothing to do with the main purposes of the passage.

Selection: That leaves us with (B). We go back and check it word for word—that is what the example is being used to show—and so we pick it and move on. **(B) is correct.**

5. The question stem is fairly general, but if you were uncertain at all, a quick scan of the answer choices shows us that it's an organization question. If we quickly think about the organization of the passage, we have: one main theory, explanation/reasons, another main theory/author opinion, explanation/reasons, and reasons against first main theory. We want an answer that best represents this.

Elimination: (A) is a fairly good match for what we expected, so let's keep it. (B) does not mention the competing theories and does not match the structure we discussed and can be quickly eliminated. (C) does not match the second half of the passage at all and can be quickly eliminated. (D) misrepresents the fact that the second main opinion is the one the author agrees with and can be quickly eliminated. (E) describes a passage very different from this one (an attempt to recreate?) and can be eliminated quickly.

That leaves us with just (A). Let's take a closer look. If we go part by part, it's easy to match up each part of the answer choice with parts of the text. (A) is a great answer, and **(A) is correct**.

2. Note that passages on the real exam will have line numbers, whereas our copies do not.

What we know of this art critic is that he finds the prophetic nature of the art to be hugely significant to its value. Let's think of this as we eliminate answers.

Elimination: (A) is unrelated to the opinion discussed. The first part of (B) sounds good, but the second part is not related to the opinion. (C) matches the author's opinion but not that of the critic. (D) isn't a great match for what we predicted, but it's the only answer that even somewhat relates to the text. Let's leave it. (E) does not relate to the opinion discussed.

Selection: We've quickly eliminated four obviously wrong answers, and are left with one answer, (D), that we don't love. However, checking (D) against the text, we see that it's a pretty good match, especially when considering that it's a "most likely" question (i.e. inference rather than exact match) and, also considering that the information came before the opinion, and is related to the opinion, is a fairly good match for some of the information in the answer. (D) is the best available choice. **(D) is correct.**

3. The statements of Picasso and Braque are mentioned in the second half of the third paragraph and we should return there and read it again before looking at the answers. They are concerned with issues of representation (i.e., the visual) not the political.

Elimination: (A) and (B) are completely opposite of the text and can quickly be eliminated. (C) is not right—chance is not discussed—and can quickly be eliminated. (D) sounds good—leave it. (E) is wrong—we have been given no sense that formal aspects of their work weren't important to them and a lot of clues that they were likely very important.

Selection: That leaves only (D)—transcend reality is a great match for "a far more 'real.'" **(D) is correct.**

6. This is a broad question that requires us to take information from a large stretch of text—let's see if we can form a better idea of the answer choices before we go back into the text.

(A), (B), and (C) are central to the passage, and we can know that they are discussed without having to go back. Did the author say they had the power to anticipate later artists? Yes, in the second paragraph. We can eliminate (D).

Selection: That leaves only (E), the obvious right answer. The author, we know, is on the other side of the fence when it comes to the artist's ability to predict future change. **(E) is correct.**

Drill: Questions in Categories

Some of the philosophers find the traditional, subjective approach to studying the mind outdated and ineffectual. For them, the attempt to describe the sensation of pain or anger, for example, or the awareness that one is aware, has been surpassed by advances in fields such as psychology, neuroscience, and cognitive science. Scientists, they claim, do not concern themselves with how a phenomenon feels from the inside; instead of investigating private evidence perceivable only to a particular individual, scientists pursue hard data—such as the study of how nerves transmit impulses to the brain—which is externally observable and can be described without reference to any particular point of view. With respect to features of the universe such as those investigated by chemistry, biology, and physics, this objective approach has been remarkably successful in yielding knowledge. Why, these philosophers ask, should we suppose the mind to be any different?

But philosophers loyal to subjectivity are not persuaded by appeals to science when such appeals conflict with the data gathered by introspection. Knowledge, they argue, relies on the data of experience, which includes subjective experience. Why should philosophy ally itself with scientists who would reduce the sources of knowledge to only those data that can be discerned objectively?

On the face of it, it seems unlikely that these two approaches to studying the mind could be reconciled. Because philosophy, unlike science, does not progress inexorably toward a single truth, disputes concerning the nature of the mind are bound to continue. But what is particularly distressing about the present debate is that genuine communication between the two sides is virtually impossible. For reasoned discourse to occur, there must be shared assumptions or beliefs. Starting from radically divergent perspectives, subjectivists and objectivists lack a common context in which to consider evidence presented from each other's perspectives.

The situation may be likened to a debate between adherents of different religions about the creation of the universe. While each religion may be confident that its cosmology is firmly grounded in its respective sacred text, there is little hope that conflicts between their competing cosmologies could be resolved by recourse to the texts alone. Only further investigation into the authority of the texts themselves would be sufficient.

What would be required to resolve the debate between the philosophers of mind, then, is an investigation into the authority of their differing perspectives. How rational is it to take scientific description as the ideal way to understand the nature of consciousness? Conversely, how useful is it to rely solely on introspection for one's knowledge about the workings of the mind? Are there alternative ways of gaining such knowledge? In this debate, epistemology—the study of knowledge—may itself lead to the discovery of new forms of knowledge about how the mind works.

Practice Test 31, Passage 4

STRUCTURE

21. Which one of the following most accurately summarizes the main point of the passage?

(A) In order to gain new knowledge of the workings of the mind, subjectivists must take into consideration not only the private evidence of introspection but also the more objective evidence obtainable from disciplines such as psychology, neuroscience, and cognitive science.
(B) In rejecting the traditional, subjective approach to studying the mind, objectivists have made further progress virtually impossible because their approach rests on a conception of evidence that is fundamentally incompatible with that employed by subjectivists.
(C) Because the subjectivist and objectivist approaches rest on diametrically opposed assumptions about the kinds of evidence to be used when studying the mind, the only way to resolve the dispute is to compare the two approaches' success in obtaining knowledge.
(D) Although subjectivists and objectivists appear to employ fundamentally irreconcilable approaches to the study of the mind, a common ground for debate may be found if both sides are willing to examine the authority of the evidence on which their competing theories depend.
(E) While the success of disciplines such as chemistry, biology, and physics appears to support the objectivist approach to studying the mind, the objectivist approach has failed to show that the data of introspection should not qualify as evidence.

26. The author characterizes certain philosophers as "loyal to subjectivity" (line 20) *(start of second paragraph)* for each of the following reasons EXCEPT:

(A) These philosophers believe scientists should adopt the subjective approach when studying phenomena such as how nerves transmit impulses to the brain.
(B) These philosophers favor subjective evidence about the mind over objective evidence about the mind when the two conflict.
(C) These philosophers maintain that subjective experience is essential to the study of the mind.
(D) These philosophers hold that objective evidence is only a part of the full range of experience.
(E) These philosophers employ evidence that is available only to a particular individual.

OPINIONS

22. Which one of the following most likely reflects the author's belief about the current impasse between subjectivists and objectivists?

(A) It cannot be overcome because of the radically different conceptions of evidence favored by each of the two sides.
(B) It is resolvable only if the two sides can find common ground from which to assess their competing conceptions of evidence.
(C) It is unavoidable unless both sides recognize that an accurate understanding of the mind requires both types of evidence.
(D) It is based on an easily correctable misunderstanding between the two sides about the nature of evidence.
(E) It will prevent further progress until alternate ways of gaining knowledge about the mind are discovered.

27. Based on the passage, which one of the following is most clearly an instance of the objectivist approach to studying the mind?

(A) collecting accounts of dreams given by subjects upon waking in order to better understand the nature of the subconscious
(B) interviewing subjects during extremes of hot and cold weather in order to investigate a connection between weather and mood
(C) recording subjects' evaluation of the stress they experienced while lecturing in order to determine how stress affects facility at public speaking
(D) analyzing the amount of a certain chemical in subjects' bloodstreams in order to investigate a proposed link between the chemical and aggressive behavior
(E) asking subjects to speak their thoughts aloud as they attempt to learn a new skill in order to test the relationship between mental understanding and physical performance

DETAILS

24. According to the passage, subjectivists advance which one of the following claims to support their charge that objectivism is faulty?

(A) Objectivism rests on evidence that conflicts with the data of introspection.
(B) Objectivism restricts the kinds of experience from which philosophers may draw knowledge.
(C) Objectivism relies on data that can be described and interpreted only by scientific specialists.
(D) Objectivism provides no context in which to view scientific data as relevant to philosophical questions.
(E) Objectivism concerns itself with questions that have not traditionally been part of philosophical inquiry.

28. Which one of the following is most closely analogous to the debate described in the hypothetical example given by the author in the fourth paragraph?

(A) a debate among investigators attempting to determine a criminal's identity when conflicting physical evidence is found at the crime scene
(B) a debate among jurors attempting to determine which of two conflicting eyewitness accounts of an event is to be believed
(C) a debate between two archaeologists about the meaning of certain written symbols when no evidence exists to verify either's claim
(D) a debate between two museum curators about the value of a painting that shows clear signs of both genuineness and forgery
(E) a debate between two historians who draw conflicting conclusions about the same event based on different types of historical data

Solution

SUMMARY

P1 - (initial) Main point: some philosophers find the subjective approach to studying the mind ineffectual. Explanations and reasoning.

P2 - (initial) Main point: philosophers loyal to subjectivity disagree. Explanations and reasoning.

P3 - Relates the two opinions—difficult to reconcile them because they lack common context—this is the secondary, but more significant, main point.

P4 - Analogy to conflict between views—like that of those with different religions. Solution is further investigation concerning true authority of those religious texts.

P5 - Relates analogy to this conflict: what is required to resolve the conflict between opinions is a look into the authority of the different perspectives. Explanation of what such a look would look like, as well as a discription of the possible positive outcome—new forms of knowledge about how the mind works.

COMMENTS

The first two paragraphs are set up very much like a traditional, more basic, LSAT passage. One opinion is given and then explained, then a second opinion is given and then explained. The passage defines itself as being somewhat unique in the third paragraph, which focuses on the reconciling of the two contrasting viewpoints (many passages present contrasting viewpoints, but few discuss reconciling them). As we read on to the fourth and fifth paragraphs or perhaps after we've read though them, it becomes clear that the initial debate between subjective versus not almost serves as a type of "backdrop," and the challenge of reconciling the two views is the primary subject of the passage. The fourth paragraph gives us an analogy meant to further explain exactly what the conflict is, and ends with a potential solution, one "sufficient" to resolve the issue. It makes sense, then, that the final paragraph would begin with an a potential application of this solution to our situation.

21. We know the passage had a complex structure—two contrasting opinions then a main point about the challenge of reconciling those contrasting opinions. We can expect that incorrect answers will misrepresent this point, and probably give us just parts of the puzzle.

Elimination: (A) is only about subjectivists, and in that way it is way too narrow. It also gives us more information about the subjectivists than we got in the text and is thus too extended (wrong all around). (B) is just about objectivists and can be eliminated quickly. (C) sounds somewhat attractive, as does (D), so let's leave both. (E) is too narrow and can be quickly eliminated.

Selection: Returning to (C) and (D)—(C) ends with success at obtaining knowledge. That seems unfamiliar, and when we check back against the text, success at obtaining knowedge, while surely relevant in real life, is simply not discussed. The authority of evidence discussed in (D) is very much in line with the main themes of the passage. **(D) is correct.**

26. Those who are loyal to **subjectivity** are an important group in the passage, and we know a lot about them—so, it makes sense they could create an "EXCEPT" question in this context. In these cases, the one "EXCEPT" situation (the right answer) will jump out at you more obviously than the wrong answers, and that's the case here. (A) is simply not in line with what we know of the subjectivists. In fact, it's the exact opposite. Still, we want to eliminate wrong choices just to be sure:

Elimination: (B) is pretty much mentioned directly in the first line of the second paragraph. (C) and (D) are also discussed in that same paragraph, and (E) is discussed indirectly in the first paragraph. **(A) is correct.**

22. We have a fairly good sense of the author's opinion about the impasse, since it is central to the point of the passage, so we can go ahead right into the answer choices.

Elimination: "Cannot" is much too strong and we can eliminate (A). (B) seems good—let's leave it. (C) is about requiring both—this is not a match for the passage, and we can eliminate (C). "Easily correctable" it is not, and we can eliminate (D). (E) makes alternative forms far more significant than the passage did.

Selection: For this problem, we only have one attractive answer. Still, "common ground" is a bit fishy—let's try to confirm it. We can find justification for it in this line: "For reasoned discourse to occur, there must be shared assumptions or beliefs." **(B) is correct.**

27. What we know of the objectionist view is that they are looking for evidence that is absolute and not subjective—that is, not subject to personal opinion or bias. With that in mind, let's take a look at the answers.

Elimination: A clear sense of the objectionist view makes the incorrect answers very obvious here. (A), (B), (C), and (E) are all clearly designed to involve subjective and personal experience and so can be eliminated quickly.

Selection: That leaves only (D). Though such an experiment is not directly mentioned in the passage, the lack of subjectivity it represents is in line with what we know of the objectionists. **(D) is correct.**

24. We know that the bulk of the information about subjectivists is in the second paragraph, so it's a good idea to go back to it and read it again before looking at the answers. Since we know the information that we are looking for, we can go ahead and search for the right answer as we eliminate wrong ones.

Elimination/Selection: For this type of problem, especially if you are focused in on one paragraph, you want to be a bit careful with your eliminations—perhaps the right answer will be a detail mentioned in passing in another paragraph. Eliminate an answer if you are absolutely certain it is wrong, but otherwise, focus on finding the right choice. (A) seems unfamiliar, but let's leave it. (B) is a direct match for the text in the second paragraph, in particular the last sentence. Let's select (B) but look at the other choices quickly. Scientific specialists eliminates (C), "no context" eliminates (D), and we have no information to support (E). With all the time in the world, maybe we double-check before eliminating (A) and (E), but otherwise, since we know (B) is correct, we can select it and move on. **(B) is correct.**

28. What we know about this debate in the fourth paragraph is that each side sees itself as being legitimate based on its own evidence. We're given this analogy in the context of conflicts with no common ground.

Elimination: Conflicting evidence is not a great match for our situation, so we can eliminate (A). (B) is about a debate within those who are witness to two contrasting viewpoints, rather than between those two contrasting viewpoints, so we can eliminate (B). (C) is about "no evidence," and that's not what the situation in paragraph four was about, so we can eliminate (C). (D) is about one element—a painting—with conflicting characteristics—this does not match our situation and we can eliminate (D). (E) is the type of answer we are looking for.

Selection: Religions, by definition, give theories on the creation of the world and the meaning of life, and per the passage, different religions draw on different texts for evidence. (E), which is about different theories on the same event which are drawn on different types of data, is a very good match for the paragraph. **(E) is correct.**

Tips on Practicing, and Reviewing Your Work

The *10 Actuals* book gives you exposure to forty recent Reading Comprehension passages. My feeling is that, coupled with the ample practice available in this book, that is enough preparation for the typical student. Some of you may feel that you need more practice than that, and of course you know yourself best. If that is the case, you may want to purchase some additional Reading Comprehension practice sections to practice with. Unless you are consistently getting -0 on all Reading Comprehension sections, I do not recommend you practice fewer passages than what is prescribed on your practice schedule. Each passage that you practice can be very valuable on multiple levels. Here are a few tips to help make sure that you are maximizing all of your study opportunities.

Each passage that you practice, both in this book and in the *10 Actuals*, should be used to **develop positive habits.** To that end, make sure to read the exact passage, and to answer each set of questions, exactly as you plan to on the exam. Remember that a big part of your practice involves training that powerful elephant of yours. If you practice passages with half your focus elsewhere, or with half the effort you ought to, your elephant will develop less effective habits. If you are consistent in how you approach each passage, you will develop skills at a far quicker pace.

Each passage that you practice should **increase your understanding** of the LSAT passages in general. A simple and effective way to quickly build up understanding is in terms of tendencies and twists. That is, as you review a passage and think about how it relates to other passages that appear on the LSAT, do so in terms of "Oh, this aspect of the passage is very typical," versus "This final paragraph was really unexpected." Use the same process in reviewing questions—now that you have a clear "baseline" for all question types, review questions in terms of whether they went as you expected, or if not, why not. And of course, it goes without saying that you should review passages until you have both a complete understanding of the reasoning structure of the passage, and the reason why one answer is correct and four answers incorrect for each problem that you solve.

Each passage that you practice should help you **fine-tune your strategies.** One way to think about this is in terms of how you chose to invest your time during the read and the questions. If you spent too long on the read, which parts did you slow down at that were ultimately not that important in terms of understanding the reasoning structure or answering questions? If you got through the read quickly but struggled with the questions, what was it that you missed in that initial read? What were the places where you should have invested more time? Did you approach question stems as you should have? Did you go back to the passage when you should have, did you reflect on the big picture issues you should have? Were you quickly able to eliminate wrong answers? If not, what was the characteristic, in retrospect, that could have allowed you to have quickly eliminated those tempting but wrong answer choices? Did you pull the trigger on the right answer when you should have? Too rushed? Too nervous?

Use each passage to work on your habits to increase your understanding and fine-tune your strategies. This type of review can be tedious and boring but it is like steroids for your brain. Feed your head!

36 READING COMPREHENSION more practice & comparative passages

Hopefully, the work we did in the previous lesson once again impressed upon you the importance of two key understandings: your understanding of the reasoning structure of the passage, and your understanding of the specific task that each question presents.

If you clearly understand the reasoning structure of a passage and clearly understand the task that the question stem presents, it becomes much easier to differentiate between the right answer and the four wrong ones. Furthermore, if you solve each problem by first eliminating four wrong choices, then by confirming the correct choice, you will have a far greater chance at being more accurate and consistent. This book has been designed to specifically aid you in developing these skills and habits, and as you continue on in your studies outside of this book, it is these skills and habits that you want to continue to grow.

Let's start this lesson by continuing to work on our problem-solving processes. On the next few pages are two practice passages, each with three actual questions attached. These passages also each have ten hypothetical questions. These questions have no answer choices, and as such there won't be a written solution for them. The purpose of these hypothetical questions is simply for you to practice handling different types of question stems and to reflect on how you might go about thinking about the answer choices.

Why Are Wrong Answers Wrong?

Being able to eliminate wrong answers is a skill critical for success. It can be helpful to keep in mind that all wrong answers either misrepresent the text or do not match the task.

Misrepresent the text by

...incorrectly identifying or translating main points
... misorganizing opinions or evidence relative to main points
... swapping out key details with information that doesn't match what the text discusses

Do not match the task in that they

... do not align with the genre of the question
... do not align with the scope of the question

Passage One

Tragic dramas written in Greece during the fifth century B.C. engender considerable scholarly debate over the relative influence of individual autonomy and the power of the gods on the drama's action. One early scholar, B. Snell, argues that Aeschylus, for example, develops in his tragedies a concept of the autonomy of the individual. In these dramas, the protagonists invariably confront a situation that paralyzes them, so that their prior notions about how to behave or think are dissolved. Faced with a decision on which their fate depends, they must reexamine their deepest motives, and then act with determination. They are given only two alternatives, each with grave consequences, and they make their decision only after a tortured internal debate. According to Snell, this decision is "free" and "personal" and such personal autonomy constitutes the central theme in Aeschylean drama, as if the plays were devised to isolate an abstract model of human action. Drawing psychological conclusions from this interpretation, another scholar, Z. Barbu, suggests that "[Aeschylean] drama is proof of the emergence within ancient Greek civilization of the individual as a free agent."

To A. Rivier, Snell's emphasis on the decision made by the protagonist, with its implicit notions of autonomy and responsibility, misrepresents the role of the superhuman forces at work, forces that give the dramas their truly tragic dimension. These forces are not only external to the protagonist; they are also experienced by the protagonist as an internal compulsion, subjecting him or her to constraint even in what are claimed to be his or her "choices." Hence all that the deliberation does is to make the protagonist aware of the impasse, rather than motivating one choice over another. It is finally a necessity imposed by the deities that generates the decision, so that at a particular moment in the drama necessity dictates a path. Thus, the protagonist does not so much "choose" between two possibilities as "recognize" that there is only one real option.

A. Lesky, in his discussion of Aeschylus' play Agamemnon, disputes both views. Agamemnon, ruler of Argos, must decide whether to brutally sacrifice his own daughter. A message from the deity Aremis has told him that only the sacrifice will bring a wind to blow his ships to an important battle. Agamemnon is indeed constrained by a divine necessity. But he also deeply desires a victorious battle: "If this sacrifice will loose the winds, it is permitted to desire it fervently," he says. The violence of his passion suggests that Agamemnon chooses a path—chosen by the gods for their own reasons—on the basis of desires that must be condemned by us, because they are his own. In Lesky's view, tragic action is bound by the constant tension between a self and superhuman forces.

Practice Test 30, Passage 2

HYPOTHETICAL QUESTIONS

A. Which of the following best describes the author's main purpose?

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B. Lesky uses the example of Agamemnon in order to

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C. Which of the following best describes the function of the third paragraph?

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D. Each of the following is discussed in relation to Rivier's viewpoint EXCEPT

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E. Snell would most likely agree that

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____

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Passage One

F. The passage best answers which of the following questions?

G. Each of the following is discussed in the passage EXCEPT

H. Which of the following, if true, would strengthen Lesky's theory?

I. Which of the following best describes the organization of the passage?

J. According to the passage, Snell's opinion is that...

ACTUAL QUESTIONS

7. Based on the information presented in the passage, which one of the following statements best represents Lesky's view of Agamemnon?

(A) Agamemnon's motivations are identical to those of the gods.
(B) The nature of Agamemnon's character solely determines the course of the tragedy.
(C) Agamemnon's decision-making is influenced by his military ambitions.
(D) Agamemnon is concerned only with pleasing the deity Artemis.
(E) Agamemnon is especially tragic because of his political position.

9. Which one of the following statements best expresses Rivier's view, as presented in the passage, of what makes a drama tragic?

(A) The tragic protagonist is deluded by the gods into thinking he or she is free.
(B) The tragic protagonist struggles for a heroism that belongs to the gods.
(C) The tragic protagonist wrongly seeks to take responsibility for his or her actions.
(D) The tragic protagonist cannot make a decision that is free of divine compulsion.
(E) The tragic protagonist is punished for evading his or her responsibilities.

14. The primary purpose of the passage is to

(A) argue against one particular interpretation of Greek tragedy
(B) establish that there are a variety of themes in Greek tragedy
(C) present aspects of an ongoing scholarly debate about Greek tragedy
(D) point out the relative merits of different scholarly interpretations of Greek tragedy
(E) suggest the relevance of Greek tragedy to the philosophical debate over human motivation

Passage One Solutions

Tragic dramas written in Greece during the fifth century B.C. engender considerable scholarly debate over the relative influence of individual autonomy and the power of the gods on the drama's action. One early scholar, B. Snell, argues that Aeschylus, for example, develops in his tragedies a concept of the autonomy of the individual. In these dramas, the protagonists invariably confront a situation that paralyzes them, so that their prior notions about how to behave or think are dissolved. Faced with a decision on which their fate depends, they must reexamine their deepest motives, and then act with determination. They are given only two alternatives, each with grave consequences, and they make their decision only after a tortured internal debate. According to Snell, this decision is "free" and "personal" and such personal autonomy constitutes the central theme in Aeschylean drama, as if the plays were devised to isolate an abstract model of human action. Drawing psychological conclusions from this interpretation, another scholar, Z. Barbu, suggests that "[Aeschylean] drama is proof of the emergence within ancient Greek civilization of the individual as a free agent."

Central issue: role of individual versus role of gods in Greek drama.

First opinion (Snell): Greek tragedies emphasize power of individual.

To A. Rivier, Snell's emphasis on the decision made by the protagonist, with its implicit notions of autonomy and responsibility, misrepresents the role of the superhuman forces at work, forces that give the dramas their truly tragic dimension. These forces are not only external to the protagonist; they are also experienced by the protagonist as an internal compulsion, subjecting him or her to constraint even in what are claimed to be his or her "choices." Hence all that the deliberation does is to make the protagonist aware of the impasse, rather than motivating one choice over another. It is finally a necessity imposed by the deities that generates the decision, so that at a particular moment in the drama necessity dictates a path. Thus, the protagonist does not so much "choose" between two possibilities as "recognize" that there is only one real option.

Second opinion (Rivier): gods choose fate and individual simply recognizes what it is.

A. Lesky, in his discussion of Aeschylus' play Agamemnon, disputes both views. Agamemnon, ruler of Argos, must decide whether to brutally sacrifice his own daughter. A message from the deity Aremis has told him that only the sacrifice will bring a wind to blow his ships to an important battle. Agamemnon is indeed constrained by a divine necessity. But he also deeply desires a victorious battle: "If this sacrifice will loose the winds, it is permitted to desire it fervently," he says. The violence of his passion suggests that Agamemnon chooses a path—chosen by the gods for their own reasons—on the basis of desires that must be condemned by us, because they are his own. In Lesky's view, tragic action is bound by the constant tension between a self and superhuman forces.

Third opinion (Lesky): tragic action is based on tension between individual and superhuman forces.

Practice Test 30, Passage 2

Passage One Solutions

7. Based on the information presented in the passage, which one of the following statements best represents Lesky's view of Agamemnon?

(A) Agamemnon's motivations are identical to those of the gods.
(B) The nature of Agamemnon's character solely determines the course of the tragedy.
(C) Agamemnon's decision-making is influenced by his military ambitions.
(D) Agamemnon is concerned only with pleasing the deity Artemis.
(E) Agamemnon is especially tragic because of his political position.

Stem: We know that Lesky seeks Agamemnon as dealing with conflict between individual and superhuman forces.

Elimination: (A) misrepresents that conflict, as does (B). (C) isn't what I expected, but I do remember reading he wanted to win—leave it. (D) misrepresents the text, and (E) doesn't match what the text discusses.

Confirmation: (C) is the only viable answer—can I prove it? Yes—in the final paragraph, it says Lesky believes Agamemnon deeply desires victory in battle. (C) doesn't represent Lesky's complete view, but it does accurately represent one part of Lesky's view. (C) is correct.

9. Which one of the following statements best expresses Rivier's view, as presented in the passage, of what makes a drama tragic?

(A) The tragic protagonist is deluded by the gods into thinking he or she is free.
(B) The tragic protagonist struggles for a heroism that belongs to the gods.
(C) The tragic protagonist wrongly seeks to take responsibility for his or her actions.
(D) The tragic protagonist cannot make a decision that is free of divine compulsion.
(E) The tragic protagonist is punished for evading his or her responsibilities.

Stem: I know Rivier feels gods choose fate, and we are simply forced to eventually recognize it. Reading the paragraph again, the "tragedy" specifically refers to the role the gods play.

Elimination: (A) is mentioned in the Rivier section, though it's not the main issue—leave it. (B) is not accurate—Rivier's work isn't about protagonist gaining the heroism of the gods. (C) is tempting, like (A) is, but doesn't seem quite perfect. Let's leave it. Oh no—(D) is also tempting. (E) is definitely wrong.

Confirmation: (A), (C), and (D) all match up with elements mentioned in that paragraph—which one is correct? Looking back at (A), we don't know if the gods are actually deluded—it's not correct. (C) has "wrongly seeks to take responsibility"—that's a little different from being free, and I'm not sure if it's wrong to "seek" taking responsibility. (D) is basically saying humans can't act without divine influence—thinking again, that's similiar to what I anticipated initially (gods play role)—(D) is correct.

14. The primary purpose of the passage is to

(A) argue against one particular interpretation of Greek tragedy
(B) establish that there are a variety of themes in Greek tragedy
(C) present aspects of an ongoing scholarly debate about Greek tragedy
(D) point out the relative merits of different scholarly interpretations of Greek tragedy
(E) suggest the relevance of Greek tragedy to the philosophical debate over human motivation

Stem: The passage presents three different views on role of individual versus role of gods in Greek drama—imagine the answer will be something related to that.

Elimination: (A) misrepresents the text—one interpretation is not singled out as being wrong. (B) misrepresents the text—the passage is about different ways to think about Greek tragedy, not the different themes in Greek tragedy. (C) is okay—this is a debate, and we've been given three different "aspects," or views, I guess —I'll leave it. (D) seems like a much better answer—I think it's correct. (E) doesn't represent the main substance of the passage—it's not correct.

Confirmation: I didn't love (C), but looking back at it I can't find much wrong with it. The passage does present aspects of an ongoing debate—the answer is terribly broad, but not wrong. Looking at (D) again, I see the word "merits," which has a positive connotation—has the author talked positively about these various interpretations? No—he's just given information, not "the positives." I realize (C) is right, not (D).

Passage Two

While historians once propagated the myth that Africans who were brought to the New World as slaves contributed little of value but their labor, a recent study by Amelia Wallace Vernon helps to dispel this notion by showing that Africans introduced rice and the methods of cultivating it into what is now the United States in the early eighteenth century. She uncovered, for example, an 1876 document that details that in 1718 starving French settlers instructed the captain of a slave ship bound for Africa to trade for 400 Africans including some "who know how to cultivate rice." This discovery is especially compelling because the introduction of rice into what is now the United States had previously been attributed to French Acadians, who did not arrive until the 1760s.

Vernon interviewed elderly African Americans who helped her discover the locations where until about 1920 their forebears had cultivated rice. At the heart of Vernon's research is the question of why, in an economy dedicated to maximizing cotton production, African Americans grew rice. She proposes two intriguing answers, depending on whether the time is before of after the end of slavery. During the period of slavery, plantation owners also ate rice and therefore tolerated or demanded its "after-hours" cultivation on patches of land not suited to cotton. In addition, growing the rice gave the slaves some relief from a system of regimented labor under a field supervisor, in that they were left alone to work independently.

After the abolition of slavery, however, rice cultivation is more difficult to explain: African Americans had acquired a preference for eating corn, there was no market for the small amounts of rice they produced, and under the tenant system—in which farmers surrendered a portion of their crops to the owners of the land they farmed—owners wanted only cotton as payment. The labor required to transform unused land to productive ground would thus seem completely out of proportion to the reward—except that, according to Vernon, the transforming of the land itself was the point.

Vernon suggests that these African Americans did not transform the land as a means to an end, but rather as an end in itself. In other words, they did not transform the land in order to grow rice—for the resulting rice was scarcely worth the effort required to clear the land—but instead transformed the land because they viewed land as an extension of self and home and so wished to nurture it and make it their own. In addition to this cultural explanation, Vernon speculates that rice cultivation might also have been a political act, a next step after the emancipation of the slaves: the symbolic claiming of plantation land that the U.S. government had promised but failed to parcel off and deed to newly freed African Americans.

Practice Test 30, Passage 4

HYPOTHETICAL QUESTIONS

A. The purpose of the fourth paragraph is to

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B. The author's purpose is primarily to

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C. The 1876 document is mentioned in the first paragraph to

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D. In stating that rice cultivation was a "political act," the author most nearly means that

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E. Which of the following could be inferred about the "after hours" cultivation of rice?

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Passage Two

F. The author would likely agree that

G. Each of the following is discussed in the first paragraph EXCEPT

H. Which of the following, if true, would weaken Vernon's theories about continued rice cultivation after the war?

I. African Americans' changing preference for corn is mentioned in order to

J. Each of the following opinions is attributed to Vernon EXCEPT

ACTUAL QUESTIONS

23. Which one of the following most completely and accurately describes the author's attitude toward Vernon's study?

(A) respectful of its author and skeptical toward its theories
(B) admiring of its accomplishments and generally receptive to its theories
(C) appreciative of the effort it required and neutral toward its theories
(D) enthusiastic about its goals but skeptical of its theories
(E) accepting of its author's motives but overtly dismissive of its theories

24. As described in the last paragraph of the passage, rice cultivation after slavery is most analogous to which one of the following?

(A) A group of neighbors plants flower gardens on common land adjoining their properties in order to beautify their neighborhood and to create more of a natural boundary between properties.
(B) A group of neighbors plants a vegetable garden for their common use and to compete with the local market's high-priced produce by selling vegetables to other citizens who live outside the neighborhood.
(C) A group of neighbors initiates an effort to neuter all the domestic animals in their neighborhood out of a sense of civic duty and to forestall the city taking action of its own to remedy the overpopulation.
(D) A group of neighbors regularly cleans up the litter on a vacant lot in their neighborhood out of a sense of ownership over the lot and to protest the city's neglect of their neighborhood.
(E) A group of neighbors renovates an abandoned building so they can start a program to watch each other's children out of a sense of communal responsibility and to offset the closing of a day care center in their neighborhood.

25. Which one of the following most completely and accurately describes the organization of the passage?

(A) A historical phenomenon is presented, several competing theories about the phenomenon are described, and one theory having the most support is settled upon.
(B) A historical discovery is presented, the method leading to the discovery is provided, and two questions left unanswered by the discovery are identified.
(C) A historical fact is presented, a question raised by the fact is described, and two answers to the question are given.
(D) A historical question is raised, possible answers to the question are speculated upon, and two reasons for difficulty in answering the question are given.
(E) A historical question is raised, a study is described that answers the question, and a number of issues surrounding the study are discussed.

Passage Two Solutions

While historians once propagated the myth that Africans who were brought to the New World as slaves contributed little of value but their labor, a recent study by Amelia Wallace Vernon helps to dispel this notion by showing that Africans introduced rice and the methods of cultivating it into what is now the United States in the early eighteenth century. She uncovered, for example, an 1876 document that details that in 1718 starving French settlers instructed the captain of a slave ship bound for Africa to trade for 400 Africans including some "who know how to cultivate rice." This discovery is especially compelling because the introduction of rice into what is now the United States had previously been attributed to French Acadians, who did not arrive until the 1760s.

Central issue: (old idea) African slaves contributed little beyond labor / main idea (author opinion)—this is not true.

Support—evidence African slaves developed cultivation of rice.

Vernon interviewed elderly African Americans who helped her discover the locations where until about 1920 their forebears had cultivated rice. At the heart of Vernon's research is the question of why, in an economy dedicated to maximizing cotton production, African Americans grew rice. She proposes two intriguing answers, depending on whether the time is before of after the end of slavery. During the period of slavery, plantation owners also ate rice and therefore tolerated or demanded its "after-hours" cultivation on patches of land not suited to cotton. In addition, growing the rice gave the slaves some relief from a system of regimented labor under a field supervisor, in that they were left alone to work independently.

Nevermind—this is the main issue (previous paragraph was background): Why did they keep growing rice?

Two possible reasons—slave owners permitted/required it, allowed them to work on their own.

After the abolition of slavery, however, rice cultivation is more difficult to explain: African Americans had acquired a preference for eating corn, there was no market for the small amounts of rice they produced, and under the tenant system—in which farmers surrendered a portion of their crops to the owners of the land they farmed—owners wanted only cotton as payment. The labor required to transform unused land to productive ground would thus seem completely out of proportion to the reward—except that, according to Vernon, the transforming of the land itself was the point.

More on main issue—after slavery, more difficult to explain.

Vernon suggests that these African Americans did not transform the land as a means to an end, but rather as an end in itself. In other words, they did not transform the land in order to grow rice—for the resulting rice was scarcely worth the effort required to clear the land—but instead transformed the land because they viewed land as an extension of self and home and so wished to nurture it and make it their own. In addition to this cultural explanation, Vernon speculates that rice cultivation might also have been a political act, a next step after the emancipation of the slaves: the symbolic claiming of plantation land that the U.S. government had promised but failed to parcel off and deed to newly freed African Americans.

Explanation (Vernon)—did it not for rice, but for action—liked to "remake" ground—might also be political act—taking control of land.

Comment: the point of this final paragraph is a bit theoretical and difficult to understand exactly. If you struggle to do so, that's okay—make sure you understand the overall gist of it (did it for some emotional/person reason rather than for rice), and most importantly, make sure you understand the purpose of the information (explains why they continued to cultivate rice after slavery).

Practice Test 30, Passage 4

Passage Two Solutions

23. Which one of the following most completely and accurately describes the author's attitude toward Vernon's study?

(A) respectful of its author and skeptical toward its theories
(B) admiring of its accomplishments and generally receptive to its theories
(C) appreciative of the effort it required and neutral toward its theories
(D) enthusiastic about its goals but skeptical of its theories
(E) accepting of its author's motives but overtly dismissive of its theories

Stem: Only time author really gives any hint of opinion is at beginning—"helps dispel"—otherwise fairly objective, I think, but definitely doesn't seem opposed in any way to Vernon's ideas.

Elimination: (A) clearly misrepresents the opinion. (B) seems good, though stronger than I expected. The tone of (C) is right, but I don't really like it—"appreciative of effort" doesn't match what I remember, but I'll leave it just in case. The author doesn't express any skepticism, so (D) is out. The author doesn't dismiss the theories, so (E) is out.

Confirmation: (B) seemed good, thought a bit stronger than what I would say—(C) seemed wrong—I'll double check (C) again—no specific mention of effort. (C) is wrong. Looking at (B) again, I guess it's not too strong—"generally receptive" is how I'd put things, and "helps dispel" and "especially compelling" help support "admiring." (B) is correct.

24. As described in the last paragraph of the passage, rice cultivation after slavery is most analogous to which one of the following?

(A) A group of neighbors plants flower gardens on common land adjoining their properties in order to beautify their neighborhood and to create more of a natural boundary between properties.
(B) A group of neighbors plants a vegetable garden for their common use and to compete with the local market's high-priced produce by selling vegetables to other citizens who live outside the neighborhood.
(C) A group of neighbors initiates an effort to neuter all the domestic animals in their neighborhood out of a sense of civic duty and to forestall the city taking action of its own to remedy the overpopulation.
(D) A group of neighbors regularly cleans up the litter on a vacant lot in their neighborhood out of a sense of ownership over the lot and to protest the city's neglect of their neighborhood.
(E) A group of neighbors renovates an abandoned building so they can start a program to watch each other's children out of a sense of communal responsibility and to offset the closing of a day care center in their neighborhood.

Stem: Okay, I remember that paragraph said that rice wasn't cultivated for sake of eating, but for the act itself—could be seen as political act. Will wait to return to passage until after eliminating some obvious mismatches.

Elimination: I don't think (A) fits—I don't remember anything about a group, and they don't plant the rice for an express purpose—(A) is out. (B) is out—it's about growing for the purpose of eating. I don't see a match for "civic duty" and "forestalling" from (C), so that's out. I don't really like (D), but it's the best so far—at least it's somewhat political. I'll leave it. I don't think "communal" was an issue, so I think I can knock off (E).

Confirmation: Shoot, no great answers—is (D) really correct? Read answer again, text again—(D) is definitely correct—doesn't match what I thought about, but that last paragraph discusses ownership and political protest.

25. Which one of the following most completely and accurately describes the organization of the passage?

(A) A historical phenomenon is presented, several competing theories about the phenomenon are described, and one theory having the most support is settled upon.
(B) A historical discovery is presented, the method leading to the discovery is provided, and two questions left unanswered by the discovery are identified.
(C) A historical fact is presented, a question raised by the fact is described, and two answers to the question are given.
(D) A historical question is raised, possible answers to the question are speculated upon, and two reasons for difficulty in answering the question are given.
(E) A historical question is raised, a study is described that answers the question, and a number of issues surrounding the study are discussed.

Stem: Quick review: general issue (slaves did/didn't contribute beyond labor) presented, then more specific issue (why did African Americans cultivate rice after slavery?) becomes main issue—gives explanation. Time to eliminate.

Elimination: (A) doesn't match structure at all. (B) is a little tempting (two questions) but has too many mismatches—I'll leave it just in case. I like (C)—leave it. (D) doesn't match latter part of the passage. (E) also doesn't match latter part of the passage (it doesn't discuss issues with the study itself).

Confirmation: Looking at (B) again, it explains the first part of the passage pretty well, actually (discovery: slaves cultivated rice from early on; method: papers; two questions: why did they cultivate rice during, then after slavery?). However, (B) doesn't represent the second half of the text. (C) better matches the entire passage—the historical fact (slaves producing rice) is mentioned early, a question (why?) is discussed, and two answers (for during slavery, then after) are given. (C) is correct.

Strategies for Comparative Passage Questions

When we first discussed comparative passage sets, one point of emphasis was that they require the same reading skills and strategies traditional passages require, but in a slightly different context. The same can be said about the *questions* that accompany these comparative sets. They require you to think about the same considerations—whether questions are general or specific, or directly asking about structure, opinions, or details—but in a slightly different context. Instead of thinking of these issues in relation to one passage, now you must think of these issues in relation to a set of related passages.

As with standard passages, the key to your success on comparative sets will be your understanding of reasoning structure. If you have a clear sense of the central issue or debate that both passages relate to, and if you have a clear sense of how both passages relate to that central issue or debate, you will be in top shape to answer all types of questions that may appear.

Some questions that accompany these passages will be pretty much exactly the same as those that accompany traditional passages—they will ask about one author's opinion, or the main point of one passage, or details mentioned in one passage. However, these questions will be in the minority.

The majority of the questions that you will see will require you to think about both passages and compare them against one another. As expected, some of these questions will ask about differences between the passages—differing opinions the authors have, or perhaps details mentioned in one passage but not the other. These questions naturally align with the differences between passages, and these questions are plentiful.

Interestingly, even more plentiful are questions that ask about similarities between passages—ideas that both authors may agree with or details that are mentioned in both passages. Even though the passages are commonly designed to fall at least somewhat on opposite sides of some sort of debate, for whatever reason the test writers choose to put in more questions about commonality than they do about differences.

Another unique characteristic of comparative question sets is that they tend to lean more toward specifics, rather than big picture issues. Questions that ask about details are far more common than in other types of passages, and broad general questions far less common. This should not impact your reading strategies. A strong understanding of reasoning structure is the key to identifying details quickly and answering detail questions correctly. Now let's discuss the general categories of questions that appear with comparative passage sets.

General Comparative Questions (common)

These questions can ask about things on which the authors agree, and these questions can ask about things on which the authors disagree. Both of these types of questions are very common. The two authors may, in general, agree, but questions may ask about points on which they disagree. Similarly, the two authors may be in general disagreement, but our job will be to focus on something they agree on.

A strong sense of the central argument and the role that each passage plays relative to that central argument (and thus one another) can help make these questions fairly straightforward, in large part because they can help us recognize more easily the incorrect answers. Wrong answers really are our best friends here; if we understand the passages well, most of the wrong choices will be very obviously wrong.

Non-Comparative Questions (uncommon)

A minority of the questions that accompany a comparative set will have nothing to do with the fact that they are a comparative set—they will ask about one passage or the other.

You want to treat these questions just as you would any others—reflect on that particular passage as a whole, look for certain details, or dive into the answer choices—just as you would with any other question.

The one arena in which it's important to remember that these questions are part of a comparative set is the answer choices. Many of the answers will be wrong for the same reasons they've always been wrong, but you will also have certain answer choices that are wrong because they actually describe the other passage. Be mindful of keeping the passages separate and you'll be fine.

Specific Comparative Questions (most common)

For comparative passage sets, expect to field a lot of questions about what was mentioned in one passage, the other, both, or neither. These questions are extremely common, and they can also be time consuming. It's important that you are good at solving these questions.

If asked about something mentioned in both passages, you can expect that some answers will likely be mentioned in neither, and some in one or the other. If asked about a detail mentioned in one but not the other, of course you should expect answers that give you the reverse of what you need.

These questions generally require you to think about both passages, but you don't really have time to check each answer against both passages. The key is to have a strong enough sense of the passages so that you can whittle down the answer choices, hopefully to just a couple, before you have to do much serious digging. Even then, it's very likely that you'll be able to remember seeing that one thing in one passage (and be able to confirm quickly) and so will only have to "dig" in the other. These detail questions tend to be subtle and sneaky, and you want to do everything you need to in order to confirm your answer. At the same time, you have to control the amount of time you spend. The key is to have a strong understanding of the passages, and the ability to get rid of some more obviously wrong answers.

Comparative Passage One

Directions below

Passage A

Because dental caries (decay) is strongly linked to consumption of the sticky, carbohydrate-rich staples of agricultural diets, prehistoric human teeth can provide clues about when a population made the transition from a hunter-gather diet to an agricultural one. Caries formation is influenced by several factors, including tooth structure, bacteria in the mouth, and diet. In particular, caries formation is affected by carbohydrates' texture and composition, since carbohydrates more readily stick to teeth.

Many researchers have demonstrated the link between carbohydrate consumption and caries. In North America, Leigh studied caries in archaeologically derived teeth, noting that caries rates differed between indigenous populations that primarily consumed meat (a Sious sample showed almost no caries) and those heavily dependent on cultivated maize (a Zuni sample had 75 percent carious teeth). Leigh's findings have been frequently confirmed by other researchers, who have shown that, in general, the greater a population's dependence on agriculture is, the higher its rate of caries formation will be.

Under some circumstances, however, nonagricultural populations may exhibit relatively high caries rates. For example, early nonagriculturual populations in western North America who consumed large amounts of highly processed stone-ground flour made from gathered acorns show relatively high caries frequences. And wild plants collected by the Hopi included several species with high cariogenic potential, notably pinyon nuts and wild tubers.

Passage B

Archaeologists recovered human skeletal remains interred over a 2,000-year period in prehistoric Ban Chiang, Thailand. The site's early inhabitants appear to have had a hunter-gatherer-cultivator economy. Evidence indicates that, over time, the population became increasingly dependent on agriculture.

Research suggests that agricultural intensification results in declining human health, including dental health. Studies show that dental caries is uncommon in pre-agricultural populations. Increased caries frequency may result from increased consumption of starchy-sticky foodstuffs or from alterations in tooth wear. The wearing down of tooth crown surfaces reduces caries formation by removing fissures that can trap food particles. A reduction of fiber or grit in a diet may diminish tooth wear, thus increasing caries frequency. However, severe wear that exposes a tooth's pulp cavity may also result in caries.

The diet of Ban Chiang's inhabitants included some cultivated rice and yams from the beginning of the period represented by the recovered remains. These were part of a varied diet that also included wild plant and animal foods. Since both rice and yams are carbohydrates, increased reliance on either or both should theoretically result in increased caries frequency.

Yet comparisons of caries frequency in the Early and Late Ban Chiang Groups indicate that overall caries frequency is slightly greater in the Early Group. Tooth wear patterns do not indicate tooth wear changes between Early and Late Groups that would explain this unexpected finding. It is more likely that, although dependence on agriculture increased, the diet in the Late period remained varied enough that no single food dominated. Furthermore, there may have been a shift from sweeter carbohydrates (yams) towards rice, a less cariogenic carbohydrate.

Practice Test 62, Passage 3

Directions: Go ahead and read the comparative sets and solve questions to the best of your ability. Please note that these comparative sets were taken from recent exams (because there are no comparative sets from older exams) so if these recent exams are part of your practice schedule, please adjust accordingly.

Comparative Passage One

16. Which one of the following distinguishes the Ban Chiang populations discussed in passage B from the populations discussed in the last paragraph of passage A?

(A) While the Ban Chiang populations consumed several highly cariogenic foods, the populations discussed in the last paragraph of passage A did not.
(B) While the Ban Chiang populations ate cultivated foods, the populations discussed in the last paragraph of passage A did not.
(C) While the Ban Chiang populations consumed a diet consisting primarily of carbohydrates, the populations discussed in the last paragraph of passage A did not.
(D) While the Ban Chiang populations exhibited very high levels of tooth wear, the populations discussed in the last paragraph of Passage A did not.
(E) While the Ban Chiang populations ate certain highly processed foods, the populations discussed in the last paragraph of passage A did not.

18. Which one of the following is mentioned in both passages as evidence tending to support the prevailing view regarding the relationship between dental caries and carbohydrate consumption?

(A) the effect of consuming highly processed foods on caries formation.
(B) the relatively low incidence of caries among nonagricultural people
(C) the effect of fiber and brit in the diet on caries formation
(D) the effect of the consumption of wild foods on tooth wear
(E) the effect of agricultural intensification on overall human health.

19. It is most likely that both authors would agree with which one of the following statements about dental caries?

(A) The incidence of dental caries increases predictably in populations over time.
(B) Dental caries is often difficult to detect in teeth recovered from archaelogical sites.
(C) Dental caries tends to be more prevalent in populations with a hunter-gatherer diet than in populations with an agricultural diet.
(D) The frequency of dental caries in a population does not necessarily correspond directly to the population's degree of dependence on agriculture.
(E) The formation of dental caries tends to be more strongly linked to tooth wear than to the consumption of a particular kind of food.

Comparative Passage One Solutions

Passage A

Because dental caries (decay) is strongly linked to consumption of the sticky, carbohydrate-rich staples of agricultural diets, prehistoric human teeth can provide clues about when a population made the transition from a hunter-gather diet to an agricultural one. Caries formation is influenced by several factors, including tooth structure, bacteria in the mouth, and diet. In particular, caries formation is affected by carbohydrates' texture and composition, since carbohydrates more readily stick to teeth.

Background (?): dental caries linked to agriculture; can use caries to figure out when a culture became agricultural.

Many researchers have demonstrated the link between carbohydrate consumption and caries. In North America, Leigh studied caries in archaeologically derived teeth, noting that caries rates differed between indigenous populations that primarily consumed meat (a Sious sample showed almost no caries) and those heavily dependent on cultivated maize (a Zuni sample had 75 percent carious teeth). Leigh's findings have been frequently confirmed by other researchers, who have shown that, in general, the greater a population's dependence on agriculture is, the higher its rate of caries formation will be.

Never mind—That there is a link between caries and agriculture is the main point of this passage. More support here for that.

Under some circumstances, however, nonagricultural populations may exhibit relatively high caries rates. For example, early nonagriculturual populations in western North America who consumed large amounts of highly processed stone-ground flour made from gathered acorns show relatively high caries frequencies. And wild plants collected by the Hopi included several species with high cariogenic potential, notably pinyon nuts and wild tubers.

Exceptions—non-agriculture but high-caries cultures/explanations.

Passage B

Archaeologists recovered human skeletal remains interred over a 2,000-year period in prehistoric Ban Chiang, Thailand. The site's early inhabitants appear to have had a hunter-gatherer-cultivator economy. Evidence indicates that, over time, the population became increasingly dependent on agriculture.

Background—about switch to agricultural society.

Research suggests that agricultural intensification results in declining human health, including dental health. Studies show that dental caries is uncommon in pre-agricultural populations. Increased caries frequency may result from increased consumption of starchy-sticky foodstuffs or from alterations in tooth wear. The wearing down of tooth crown surfaces reduces caries formation by removing fissures that can trap food particles. A reduction of fiber or grit in a diet may diminish tooth wear, thus increasing caries frequency. However, severe wear that exposes a tooth's pulp cavity may also result in caries.

Explanation of how agriculture leads to caries—same point as first passage.

The diet of Ban Chiang's inhabitants included some cultivated rice and yams from the beginning of the period represented by the recovered remains. These were part of a varied diet that also included wild plant and animal foods. Since both rice and yams are carbohydrates, increased reliance on either or both should theoretically result in increased caries frequency.

Background: setting us up to get a "twist" in the final paragraph. Based on what we know, Ban Chiang should have higher caries, but...

Yet comparisons of caries frequency in the Early and Late Ban Chiang Groups indicate that overall caries frequency is slightly greater in the Early Group. Tooth wear patterns do not indicate tooth wear changes between Early and Late Groups that would explain this unexpected finding. It is more likely that, although dependence on agriculture increased, the diet in the Late period remained varied enough that no single food dominated. Furthermore, there may have been a shift from sweeter carbohydrates (yams) towards rice, a less cariogenic carbohydrate.

Explanation—variety in diet, switch to less cariogenic agriculture could be reasons why they don't.

Practice Test 62, Passage 3

Comparative Passage One Solutions

16. Which one of the following distinguishes the Ban Chiang populations discussed in passage B from the populations discussed in the last paragraph of passage A?

(A) While the Ban Chiang populations consumed several highly cariogenic foods, the populations discussed in the last paragraph of passage A did not.
(B) While the Ban Chiang populations ate cultivated foods, the populations discussed in the last paragraph of passage A did not.
(C) While the Ban Chiang populations consumed a diet consisting primarily of carbohydrates, the populations discussed in the last paragraph of passage A did not.
(D) While the Ban Chiang populations exhibited very high levels of tooth wear, the populations discussed in the last paragraph of Passage A did not.
(E) While the Ban Chiang populations ate certain highly processed foods, the populations discussed in the last paragraph of passage A did not.

Stem: The populations at end of previous paragraph were non-agricultural, whereas the Ban Chiang were agricultural. Could be something else too. Time to eliminate.

Elimination: (A) is not true—both consumed cariogenic foods—cut. (B) looks like my answer—leave. Not sure about "primary" regarding Ban Chiang or other populations—cut (C). (D) is incorrect relative to the passage—cut. (E) sounds like the right answer too—leave.

Confirmation: Both (B) and (E) look good—time to look more carefully—what's difference between cultivation and processing? Cultivation is growing stuff—agriculture. Processing doesn't have to be agriculture, and populations in passage A do process their food (though they don't grow it). (B) is correct.

18. Which one of the following is mentioned in both passages as evidence tending to support the prevailing view regarding the relationship between dental caries and carbohydrate consumption?

(A) the effect of consuming highly processed foods on caries formation.
(B) the relatively low incidence of caries among nonagricultural people
(C) the effect of fiber and grit in the diet on caries formation
(D) the effect of the consumption of wild foods on tooth wear
(E) the effect of agricultural intensification on overall human health.

Stem: Both discuss research involving pre-agricultural/agricultural societies, I think. Could be something else though—time to eliminate.

Elimination: "Processed" doesn't directly impact the relationship between caries and carbs (as I just thought about on #16)—can cut (A). I think (B) is right—leave. I see fiber and grit in Passage B—quickly look in Passage A—not there—eliminate (C). What are "wild" foods? Nothing like that discussed in second passage—cut (D). (E) is only discussed in second passage I think—double-check—yup.

Confirmation: Double-check that (B) is discussed by both passages—it is—(B) is correct.

19. It is most likely that both authors would agree with which one of the following statements about dental caries?

(A) The incidence of dental caries increases predictably in populations over time.
(B) Dental caries is often difficult to detect in teeth recovered from archaelogical sites.
(C) Dental caries tends to be more prevalent in populations with a hunter-gatherer diet than in populations with an agricultural diet.
(D) The frequency of dental caries in a population does not necessarily correspond directly to the population's degree of dependence on agriculture.
(E) The formation of dental caries tends to be more strongly linked to tooth wear than to the consumption of a particular kind of food.

Stem: Both give main points that caries and carbs linked, while also discussing exceptions.

Elimination: (A) is tempting—they do give reasons why increases happen—leave. "Difficult to detect" in (B) not discussed by passages. (C) goes against what passages say. (D) is correct, I think—leave. (E) doesn't match passage, which is about food's impact on caries.

Confirmation: Looking at (A) again—is it saying caries increase in all populations? Also, who says it's predictable—not sure what I was thinking, but (A) is not inferrable. Both authors give examples in which dependence on agriculture doesn't match up with the amount of caries, so they would definitely agree with (D). (D) is right.

Comparative Passage Two

Passage A

Central to the historian's profession and scholarship has been the ideal of objectivity. The assumptions upon which this ideal rests include a commitment to the reality of the past, a sharp separation between fact and value, and above all, a distinction between history and fiction.

According to this ideal, historical facts are prior to and independent of interpretation: the value of an interpretation should be judged by how well it accounts for the facts; if an interpretation is contradicted by facts, it should be abandoned. The fact that successive generations of historians have ascribed different meanings to past events does not mean, as relativist historians claim, that the events themselves lack fixed or absolute meanings.

Objective historians see their role as that of a neutral judge, one who must never become an advocate or, worse, propagandist. Their conclusions should display the judicial qualities of balance and evenhandedness. As with the judiciary, these qualities require insulation from political considerations, and avoidance of partisanship or bias. Thus objective historians must purge themselves of external loyalties; their primary allegiance is to objective historical truth and to colleagues who share a commitment to its discovery.

Passage B

The very possibility of historical scholarship as an enterprise distinct from propaganda requires of its practitioners that self-discipline that enables them to do such things as abandon wishful thinking, assimilate bad news, and discard pleasing interpretations that fail elementary tests of evidence and logic.

Yet objectivity, for the historian, should not be confused with neutrality. Objectivity is perfectly compatible with strong political commitment. The objective thinker does not value detachment as an end in itself but only as an indispensable means of achieving deeper understanding. In historical scholarship, the ideal of objectivity is most compellingly embodied in the powerful argument—one that reveals by its every twist and turn its respectful appreciation of the alternative arguments it rejects. Such a text attains power precisely because its author has managed to suspend momentarily his or her own perceptions so as to anticipate and take into account objections and alternative constructions—not those of straw men, but those that truly issue from the rival's position, understood as sensitively and stated as eloquently as the rival could desire. To mount a telling attack on a position, one must first inhabit it. Those so habituated to their customary intellectual abode that they cannot even explore others can never be persuasive to anyone but fellow habitues.

Practice Test 63, Passage 4

24. The author of passage B and the kind of objective historian described in passage A would be most likely to disagree over whether

(A) detachment aids the historian in achieving an objective view of past events
(B) an objective historical account can include a strong political commitment
(C) historians today are less objective than they were previously
(D) propaganda is an essential tool of historical scholarship
(E) historians of different eras have arrived at differing interpretations of the same historical events

25. Which one of the following most accurately describes an attitude toward objectivity present in each passage?

(A) Objectivity is a goal that few historians can claim to achieve.
(B) Objectivity is essential to the practice of historical scholarship.
(C) Objectivity cannot be achieved unless historians set aside political allegiances.
(D) Historians are not good judges of their own objectivity.
(E) Historians who value objectivity are becoming less common.

27. The argument described in passage A and the argument made by the author of passage B are both advanced by

(A) citing historical scholarship that fails to achieve objectivity
(B) showing how certain recent developments in historical scholarship have undermined the credibility of the profession
(C) summarizing opposing arguments in order to point out their flaws
(D) suggesting that historians should adopt standards used by professionals in certain other fields
(E) identifying what are seen as obstacles to achieving objectivity

Comparative Passage Two Solutions

Passage A

Central to the historian's profession and scholarship has been the ideal of objectivity. The assumptions upon which this ideal rests include a commitment to the reality of the past, a sharp separation between fact and value, and above all, a distinction between history and fiction.

(Likely) background: objectivity central to job of being historian—description of what objectivity requires.

According to this ideal, historical facts are prior to and independent of interpretation: the value of an interpretation should be judged by how well it accounts for the facts; if an interpretation is contradicted by facts, it should be abandoned. The fact that successive generations of historians have ascribed different meanings to past events does not mean, as relativist historians claim, that the events themselves lack fixed or absolute meanings.

More about objectivity and historians—this is the author's main point: objectivity is important to historians. More on this—says that historical facts are independent and true, even if this meaning changes over time.

Objective historians see their role as that of a neutral judge, one who must never become an advocate or, worse, propagandist. Their conclusions should display the judicial qualities of balance and evenhandedness. As with the judiciary, these qualities require insulation from political considerations, and avoidance of partisanship or bias. Thus objective historians must purge themselves of external loyalties; their primary allegiance is to objective historical truth and to colleagues who share a commitment to its discovery.

More on what is required to be an objective historian.

Passage B

The very possibility of historical scholarship as an enterprise distinct from propaganda requires of its practitioners that self-discipline that enables them to do such things as abandon wishful thinking, assimilate bad news, and discard pleasing interpretations that fail elementary tests of evidence and logic.

Similar to end of previous passage—seems like characteristics required of objective historian.

Yet objectivity, for the historian, should not be confused with neutrality. Objectivity is perfectly compatible with strong political commitment. The objective thinker does not value detachment as an end in itself but only as an indispensable means of achieving deeper understanding. In historical scholarship, the ideal of objectivity is most compellingly embodied in the powerful argument—one that reveals by its every twist and turn its respectful appreciation of the alternative arguments it rejects. Such a text attains power precisely because its author has managed to suspend momentarily his or her own perceptions so as to anticipate and take into account objections and alternative constructions—not those of straw men, but those that truly issue from the rival's position, understood as sensitively and stated as eloquently as the rival could desire. To mount a telling attack on a position, one must first inhabit it. Those so habituated to their customary intellectual abode that they cannot even explore others can never be persuasive to anyone but fellow habitues.

Twist—this passage is about something a little different—objectivity versus neutrality. "Political commitment" part contradicts what it says about objectivity in first passage. (Author of first passage sees neutrality as part of objectivity, author of second passage doesn't, I think).

Another change of issue—says non-neutrality important to making a good argument.

(Comment: can see both being related to central issue of what is required to be an objective historian. Author of first passage sees neutrality as requirement of objectivity, but second doesn't. The second also discusses value of not having neutrality.)

Practice Test 63, Passage 4

Comparative Passage Two Solutions

24. The author of passage B and the kind of objective historian described in passage A would be most likely to disagree over whether

(A) detachment aids the historian in achieving an objective view of past events
(B) an objective historical account can include a strong political commitment
(C) historians today are less objective than they were previously
(D) propaganda is an essential tool of historical scholarship
(E) historians of different eras have arrived at differing interpretations of the same historical events

Stem: I know they disagree about political commitments (specifically) and seem to disagree about neutrality (generally) but it can be something else too. Time to eliminate.

Elimination: I think both authors see value of (A). (B) is the right answer—leave. (C) is not discussed by either passage, nor is (D). The second passage doesn't speak of (E), and I think both authors would agree on it anyway.

Confirmation: Double-check—passage A says objective historian needs to isolate himself from political commitments, and passage B says objectivity is perfectly compatible with strong political commitment. (B) is correct.

25. Which one of the following most accurately describes an attitude toward objectivity present in each passage?

(A) Objectivity is a goal that few historians can claim to achieve.
(B) Objectivity is essential to the practice of historical scholarship.
(C) Objectivity cannot be achieved unless historians set aside political allegiances.
(D) Historians are not good judges of their own objectivity.
(E) Historians who value objectivity are becoming less common.

Stem: I know that both passages present objectivity as useful and characteristic of historians, but let's see what the answers are about.

Elimination: I don't think either discussed (A). (B) is the right answer, I think. (C) is not something Passage B agrees with. (D) is not specifically discussed in either passage, nor is (E).

Confirmation: Don't even need to double-check this—both passages are *about* (B).

27. The argument described in passage A and the argument made by the author of passage B are both advanced by

(A) citing historical scholarship that fails to achieve objectivity
(B) showing how certain recent developments in historical scholarship have undermined the credibility of the profession
(C) summarizing opposing arguments in order to point out their flaws
(D) suggesting that historians should adopt standards used by professionals in certain other fields
(E) identifying what are seen as obstacles to achieving objectivity

Stem: "Advanced by"—the question is asking about structure. Let's see—Passage A sets up objectivity as being important to historian, then expands. Passage B discusses importance of objectivity, then switches gears to discuss neutrality relative to objectivity, then expands on that. They seem pretty different...

Elimination: Neither cites failed scholarship, I think, so (A) is out. (B) is not relevant to either passage. Neither cites opposing arguments, so (C) is out. Other professionals? Quick scan—nope—not discussed. (D) is out. (E) seems okay—not great, but it's the only one left.

Confirmation: Does each passage specifically mention "obstacles?" I guess the first passage does at the end—the political considerations, allegiances and such could be seen as obstacles. Second passage definitely presents obstacles in the first paragraph. (E) is correct.

37 READING COMPREHENSION review timing strategies and final thoughts

We have two Reading Comprehension lessons left. In this lesson, we will review the main points that we have discussed in other Reading Comprehension lessons, walk through timing strategies, and talk about the work that you'll be doing after this book. In the next lesson, we'll work on our final practice set of passages.

A Review of Lessons

Here is a snapshot review of the key points made in the various Reading Comprehension lessons. The lesson number has been listed after the point. You can use this list to reflect on what we've discussed and also to note areas in which it might help to do a bit of review.

The Reading Comprehension section tests your reading ability—primarily, your ability to recognize reasoning structure (22).

The reasoning structure of a passage is the relationship between various parts of a passage; typically, the relationships in LSAT passages are structured around (often opposing) main points (22).

Reading Comprehension passages are not designed to test, in a significant way, your ability to retain a lot of information, your understanding of unusual subjects and words, or your critical reasoning ability (22).

You are never required to be critical of reasoning as you read a passage, but one or two questions may ask for you to evaluate one of the opinions critically.

It's helpful to think about all parts of a passage in terms of the following roles, all of which are defined by the main points made in the passage: main points, author's view of those points, reasons for and against those points, more information about those points, as well as potential applications, and finally, background on the subject matter related to those points (22).

Getting good at LSAT Reading Comprehension is less about developing new skills and more about correctly utilizing tools you already have (23).

As we read, we want to focus on reasoning structure more than subject matter, we want to embrace uncertainty when uncertainty is warranted, and we want to use main points to organize our thoughts (23).

The best time to most easily understand a passage is at the end of it, and for certain difficult passages, it will be nearly impossible to completely understand the passage before that point (23).

The question stem is the third piece of the jigsaw puzzle; it brings together the passage and the correct answer. In general, it will tell you whether the answer relates to the passage as a whole, or to a specific component (24).

There is great commonality to the reasoning structures for different passages, and it can be helpful to think about the reasoning structure of passages in terms of tendencies and twists (25).

Comparative Passage sets present two passages that are both related to some central issue. Your primary tasks are to figure out what that central issue is, how the passages relate to it, and how the passages relate to one another (25).

General comparative passage set questions will be about the central issue, how the passages relate to it, or how the passages relate to one another. A strong majority of specific questions will be about commonalities and differences between the two passages (25).

There is a large variety of questions that you can encounter in the Reading Comprehension section but they are all just different combinations of a few specific characteristics (35).

The two fundamental considerations for any question are the genre (Is it asking about reasoning structure, an opinion, or information?) and the scope (general or specific?) (35).

Use specific strategies for different types of structure, opinion, and detail questions (35).

Strengthen and Weaken questions are unique in that they require critical reasoning skills (35).

Read each question stem carefully. Use it to decide scope and genre and to decide how much you are expected to anticipate about the right answer (35).

Wrong answers are typically easier to spot than right ones, especially for more challenging questions, and in most instances you should aim to eliminate four wrong choices before selecting an answer (35).

Wrong answers are wrong because they misrepresent the text or because they don't match the task presented in the question stem (36).

The majority of questions for Comparative Passage sets will require you to compare the passages against one another (36).

Comparative Passage sets tend to have more specific questions and less general questions than other types of passages (36).

Timing

We discussed some basic Reading Comprehension timing strategies back in Lesson 25. Let's revisit some of the key points we made and discuss timing in more depth.

In recent years, every Reading Comprehension section has contained twenty-seven questions. This might change any minute but it won't change drastically. In general, you want to spend about 2:30 to 3 minutes reading each passage and about :45 to a minute per question. Different questions will require varying amounts of time; however, most passages are of a similar length, and once you settle into your practice exams, you should be able to set a fairly consistent reading pace.

Different test takers take different amounts of time initially reading a passage; people have been successful with a variety of strategies. In general, if you average more time (say, 4:00 or so) per read, you should expect to retain a bit more of the passage than what I typically suggest in the solutions, and you should expect that questions will go faster for you than I suggest. If you read faster than 2:30 or 3:00 per passage, you'll certainly have a bit more time for questions, but if you are reading at that fast of a pace, you want to make sure it's not putting you at risk for misunderstanding the main points or the reasoning structure.

In Lesson 25, we also discussed the fact that pace typically matches process—if your skills and habits are strong, timing becomes less of an issue. Timing is a more significant issue when your path to the right answer is less direct. Finally, we also discussed the fact that, when we have to make difficult decisions in terms of time, it's best to cut out individual questions, rather than entire passages. We'll expand on both of those points in this lesson.

Basic Timing Instincts

Answering any LSAT question correctly involves a series of correct steps. These steps can overlap and sometimes you can get away with not being "perfect" at one of them, but for every Reading Comprehension question, you will be required to:

1) understand the relevant information about the passage
2) understand what the question stem is asking of you
3) see why the wrong answers are wrong
4) see why the right answer is right

The best way to think about the efficient use of time is to think about what you are doing relative to these necessary steps. Here's what I mean, in a bit more detail:

It is an ***efficient*** use of time to stop during your read to think, when necessary, about the reasoning structure of the passage. If you were certain that the second paragraph played one role, but then, in reading the third paragraph, you are not so sure you understand the point of the passage at all, quickly go back and think about the second paragraph again. If you felt pretty certain about the two sides of an issue, but then something you read makes you feel like your priorities are out of whack, take the time to stop, reassess, and reread as necessary. Of course, you can't spend an inordinate about of time (to be discussed further in just a bit) doing this, but in general this will be time well spent. The reason? Reasoning structure is always relevant to several of the questions that you will see, and, as I'm sure many of you have experienced, it's next to impossible to get through the questions in a time-efficient manner if you don't have a good sense of reasoning structure.

It is commonly an ***inefficient*** use of time to stop during your read to think about the meaning of complex phrases or sentences. This is not true if that complex phrase or sentence is necessary for you to understand the central issue or a key opinion. However, in just about every other instance, you don't have to concern yourself with being perfectly in-tune with every detail mentioned. Those random details are, mathematically speaking, unlikely to factor into any questions, and even if they do turn out to be relevant to a question, you can always come back to reread them as need be. If you find yourself rereading and rereading a sentence, ask yourself—do I understand why it is here? If you are not so clear on the what, but clear on the why, then move on and keep reading forward.

It is always an ***efficient*** use of time to stop and carefully think about the question stem. The question stem tells us a lot of things—it tells us what to expect from right answers and, less directly, what to expect from wrong answers. It also tells us what we should do—whether we should go back into the text to look at certain relevant information before looking at the answer choices, or whether we should move right into eliminating wrong choices.

It is an ***inefficient*** use of time (and an unnecessary distraction) to try and predict questions as you read, and it is an extremely inefficient use of your time to read the questions before you read the passage. Frankly, these strategies are so bad that I don't even want to bring them up, but I need to do so because they somehow exist in the general stratosphere of commonly used LSAT strategies. Do not read questions ahead of the passage, and do not try to anticipate questions as you read. They are both ineffective strategies for test takers at all score levels.

You use time ***efficiently*** when you eliminate incorrect answers quickly, and for concrete reasons. You use your time ***inefficiently*** when you eliminate when you are less than certain, and commonly have to go back to answers you've already eliminated. There are definite reasons that answers are wrong, and the elimination process is about using these definite reasons to get rid of answers with confidence. Do not linger during the elimination process. If an answer seems wrong but you just can't put your finger on why, it may just be the right answer in disguise—leave it for after the elimination round. Your eliminations should be certain and quick, and you should never (or very, very rarely) expect to go back to an answer you have crossed off. Make sure to use your practice to improve your ability to eliminate more and more of the wrong answers with accuracy and pace.

You use time ***efficiently*** when you confirm right answers and eliminate wrong answers by comparing them against the passage and against the task in the question stem. You use time ***inefficiently*** when you compare answers against one another and think about which one is "more right." Hopefully, at the end of your first round elimination process, there is an answer that stands out as being either certainly, or most likely, correct. However, when there isn't an answer that looks great, or when there are two or more answers that seem correct, focus on trying to find what is right or wrong with these answers relative to text and task. Do not get stuck comparing the answers to one answer, for you will surely get biased by their relative "attractiveness," and test writers are great at making right answers seem less attractive and wrong ones more so. Always keep your eye on the ball—work to match the text of one answer at a time against the passage and the question, and look for concrete reasons to like an answer or be suspicious of it.

Finally, you use time ***inefficiently*** when you get stuck on a question and spin your wheels. In general, the time that is most commonly wasted by all students is the time spent in indecision on questions that the student finds most difficult. I'll discuss this more on the next page.

Essential Timing Habits

In just a few lessons, you will officially enter the final phase of your preparation (woohoo!). As we have discussed, the primary purpose of the final phase of your training is to develop the habits that will help you apply your skills at your best. When it comes to Reading Comprehension, there are three key habits I really want you to keep in mind.

One: Habitualize a Reading Pace

And make sure it's a brisk one. You want to read slowly enough so that you can eventually understand why each part of the passage is there, but fast enough so that you do not get bogged down in details.

For most of us, the pressure of the exam (even the pressure of a timed practice test) wreaks havoc on our sense of time—we suddenly become terrible at estimating how long we are taking at reading a passage or answering a question. We can't help it—when we get to a certain point of focus or stress, our sense of time begins to wobble.

That's why it's imperative that you habitualize a certain reading pace. Get used to reading all LSAT passages at a certain pace, and try to stay as consistent as possible throughout your practice, while making your practice as realistic as possible. And get comfortable pushing that pace whenever you can.

Two: Go Fast on Questions That Go Fast

It's important to use perfect form and it's important to get the questions we find easier right, but I also want to encourage you to push the pace during a question whenever you feel that your confidence is high and warranted. By this point, you know this test well, and there should be a lot of questions that go exactly as you expect—sometimes you can get through these questions in twenty seconds or less. Being able to go very fast on certain questions is a secret to the success of many top test takers—this leaves them plenty of time to carefully think through the situations that require more thought. Make sure that you use your practice to work on getting through easier questions quickly while maintaining your accuracy.

Three: Don't Spin Your Wheels

If you were to take a sample section and time each question that you solve, it is very likely that you'll discover at least four questions for which you spent two or more minutes. Of these four, it's very unlikely that you got more than two correct—these questions take a long time because you don't understand them.

Those four problems likely took you about 8 - 9 minutes, which is 25% of the time you have for the section. Getting two correct answers in eight to nine minutes represents a terrible rate of return (if you were to extrapolate, it's equivalent to getting 32 questions correct for the entire exam). You can get an advantage on most test takers if you can lessen the impact of these time-sucking questions—if you can develop a strong habit of spending no more than a minute-thirty on all but the most challenging questions, and no more two minutes on any one question, no matter how challenging that question is (that is, unless you have that time to spare, as we'll discuss in just a bit). Remember, harder questions aren't worth more points, and your goal is to answer as many questions right as possible. Invest your time in making sure you get right the ones you can, and make time for this by cutting your time on the toughest questions.

Timing Patterns for Top Scorers

When it comes to timing, top scorers in the Reading Comprehension section—those who are consistently able to miss two or fewer questions per section—typically share two common characteristics:

Top Scorers Have Time to Get through Every Step of the Process

In order to consistently answer questions correctly, we need to understand the reasoning structure of the passage, the task presented in the question stem, the reasons wrong answers are wrong, and the reason why the right answer is right—generally in that order. When you first started studying, you may have felt that it would be impossible to successfully satisfy these steps for each and every question; hopefully, you see more and more as you study that thinking about your process in terms of these steps not only makes you more accurate, but faster, because it helps you use your time more efficiently.

When we are rushed for time, sometimes we need to move on from the passage to the questions without completely understanding the reasoning structure, and commonly we are forced to pick an answer without getting a chance to confirm with certainty that it is indeed correct, or that the others are indeed incorrect. It is very hard to consistently score at a very high level if you are consistently facing these challenges.

Top scorers are fast enough so that their scores are not limited by these types of constraints. They are fast enough to slow down when they need to as they read in order to understand reasoning structure, and they are fast enough to thoroughly vet the right answer, and every wrong answer, for almost all questions.

Top Scorers can Finish the Section in Less Than Thirty-Five Minutes

Notice I said can—that doesn't mean a top scorer won't end up utilizing all thirty-five minutes. The point I want to make is that top scorers are capable of going at a pace that would allow them to, if they choose not to spend a significant amount of extra time on any particular question, finish the section in well less than thirty-five minutes.

A typical Reading Comprehension section will have a few (anywhere from two to four, depending on the exam and how you tend to judge these things) questions that are extremely difficult to solve, even for the top scorers. It's a huge advantage to have extra time for these questions. If, for example, you are able to consistently get through reading passages and answering all but the hardest two or three questions in a section in twenty-five minutes or less, then you know you have ten minutes or so for those two or three killer questions—in other words, as much time as you need. If your goal is to keep improving your score, and if you struggle at all with finishing in thirty-five minutes, your goal should be to limit the time you spend on the toughest questions. However, if you have improved to the point where you are trying to go -0 or -1 in a section, these toughest questions are your most important. Extra time for just these questions can be a huge advantage, and generally it's very hard to get a top score without it.

How to Get There

Just tap your heels three times and...

It's obviously easier to describe a top scorer than it is to become a top scorer. However, keep in mind that for every administration of the exam there are plenty of people that do rise up to get those top scores, and there is no reason to think that you shouldn't be one of them. Here are some suggestions for how to get there.

One: Work to Be Able to Finish the Section in Thirty-Five Minutes

The first step in the process is to be able to finish a section in thirty-five minutes, while feeling reasonably comfortable with your reading pace and your problem-solving process. There is a difference between getting faster at solving questions and just going faster through each of your steps. The first is generally a consequence of understanding and focus, and the second is akin to rushing. The key to getting to this thirty-five-minute pace is to get strong at using your time effectively. In particular, if you are finding yourself challenged, keep working on eliminating the inefficient uses of time.

Two: Push the Pace with Each New Practice Test

Obviously, if it seems you need about thirty-seven or thirty-eight minutes to satisfactorily finish a practice section, you want to push the pace to get to the thirty-five minute mark. However, even when you get to a point at which you can finish a practice test in thirty-five minutes, keep pushing the pace—try to finish the next one in thirty-three or thirty-four, the next one in thirty-one, and so on. Try to cut your time in two primary ways—by getting rid of the instances in which you "spin your wheels," and by working to get faster at the questions with which you are most comfortable. Of course, do not sacrifice accuracy for pace. However, as you get better and better at this exam, you should find yourself more capable of going faster and faster. It's okay to push yourself to see how fast you can go without sacrificing accuracy, and in fact, that should be something that is embedded into your mindset from this point forward as you get ready for your exam.

Three: Practice Using That Extra Time

Imagine that you get to a point at which you feel confident that you can consistently get through a Reading Comprehension section in about thirty minutes. That leaves you a full five extra minutes to spend as you like. That's a big deal, for if you play your cards right, that means you will have plenty of time to think through the most challenging aspects of the section.

One effective way to spend this extra time is to give yourself an extra minute or two when you recognize that you are dealing with a particularly challenging reading passage. An extra minute or two, as I'm sure you know by now, can be extremely useful on the most difficult of passages. Even just knowing that you have an extra minute or two, and being able to slow down and relax, can do a world of good. Or, if you catch on later in a passage that you've missed the point somewhat, two minutes is even enough to read the entire passage over again if need be. Keep in mind that if you are at this level, it's highly unlikely that more than one passage per section, or two passages in the rarest of circumstances, will make you feel like you really need to slow down and reassess.

Another effective use of extra time is to give yourself an extra minute, ideally from as early a point as possible, when you notice that you've run into a particularly difficult question. This should give you plenty of time to carefully try and understand the relevant text and confirm that answers are right or wrong.

Some students like to have time left over at the end of the section to serve as a buffer in case the last passage is unexpectedly difficult, or in order to return to the challenging questions. The first reason is perfectly legitimate and it is very comforting to go into the final passage with ten or more minutes remaining. The second use of time, in my experience, has been of questionable value to students. In general, it's better to use that time when you are initially focused on the passage and the question, if possible. Of course, when you take the exam, you do want to mark a question or two to return to in case you happen to find yourself with extra time at the end of a section.

Mitigating Strategies

We've just laid out the ideal timing strategies for top scorers and some suggestions for how to get there. But of course, not everyone can or needs to be a top scorer in the Reading Comprehension section. Maybe your strong suit is Logic Games or Logical Reasoning, and getting -4, or -6, or -8 on the Reading Comprehension is going to ensure your overall goals. Let's discuss more specifically some timing strategies that can help you get the best score possible on test day. Keep in mind that all these strategies we will discuss are based on two basic tenets—we want to spend the time necessary to get the questions right that we have the best chance of getting right, and we want to avoid spending extra time on questions we are most likely to get wrong.

If you find near the end of your studies that you are not able to comfortably finish the section in thirty-five minutes, you will need to make some difficult time allocation decisions, specifically decisions about when to cut your work short or spend less time than you would like to. There are two ways to cut your time: spend less time reading passages or spend less time answering questions.

Less Time Reading Passages

If you are spending an average of more than three minutes reading each passage, and if you are struggling to finish questions on time, you should try to improve the pace at which you read. One way to try to do this is by pushing the pace on passages that feel easy or comfortable. Of course, don't ever rush.

More importantly, save time by really limiting yourself on the most difficult passages. It's very easy to get lost in those more difficult passages and to spend four or five minutes reading those passages—this is never a good idea. Set a firm cut-off—say, 3:30 maximum on any one passage, with the goal of a 2:45 average for the set of four.

Stick to that 3:30 maximum by simplifying and streamlining your goals when you find that a passage is particularly difficult for you to understand and organize. If need be, strip down the goal of your read to just two simple tasks and nothing else: you will spend the 3:30 just trying to figure out the main points and the author's opinion. If the main points are convoluted or subtle, do your best to come up with simplified and accurate versions and move on (later, you may be able to use the answers for general questions to verify and fine-tune your understanding). Practice sticking to these limits so that you don't accidently over-invest time in any one passage on test day.

Less Time Answering Questions

The other way in which we can cut our time, of course, is by spending less time answering questions. Just as with the passages, part of this has to do with going faster on questions that you feel comfortable with. However, for those who are having significant timing issues, typically the bigger problem is that the hardest questions are taking too much time.

Set a maximum time limit for any one question (1:45 or 2:00 are nice numbers) and allow yourself to "max out" your time just a few times (I'd suggest 3 or 4) per section. Now, keep in mind that, during the pressure of the exam, it's tough to keep track of and stick to those numbers, and it can certainly be an unnecessary distraction. The better way to track time is through processes—have set processes for how you handle difficult questions and stick to them no matter what. For example, sometimes a problem is difficult because it's very hard to find the relevant information—maybe you give yourself 30 seconds to go as slowly as you can through the text to find it, then select the best available answer no matter what. Sometimes a problem will go just as you expect until the very end (when you realize the answer you expected isn't there) —sometimes the best thing to do is to just try and solve it again from the beginning. For most test takers, 2:00 is about how long it takes to try solving a question twice—if you are going to go this route, give yourself that second shot, but force yourself to pick an answer at the end of it **no matter what**. If you can think of your question "maximums" in terms of steps rather than just time spent, it's much easier to be consistent and in control.
Cutting time on the hardest questions will be much better for your overall score than trying to rush through every question more quickly, and it's certainly much better than not getting to certain questions because you run out of time. Make sure you habitualize the processes that will stop you from spending too much time on any one question on test day.

It's easier to keep track of processes than it is to keep track of time

Your Next Steps

If you are following one of the recommended study schedules, your final Reading Comprehension preparation will center on the sections that you do as part of your final practice exams. You 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 to help ensure that you get the most out of this final work.

One: Before Each Exam, Remind Yourself of Key Considerations

Don't spend an hour (or even five minutes) thinking through these key considerations, but do remind yourself of a few important things: your general timing strategies and goals, other strategies that you know are important to your success, and issues that may have come up for you in the past. A good idea is to jot this down on a three-by-five note card (you can make a note card for each of the sections) and to review the note card before beginning your exam.

Two: During the Exam, Keep Track of Certain Markers

As per the instructions in your study schedule, it can be very helpful to keep track of certain issues as you are taking your practice exams. These things will help you review and assess your progress afterward, and should be simple enough as to not significantly impact your overall performance.

For Reading Comprehension, the key things to keep track of are:
(A) the amount of time each passage takes you to read
(B) the amount of time each question set takes
(C) the questions for which you were not certain of your answer
(D) (optional) the questions for which you felt you spent a lot of time

You can keep track of (A) and (B) by marking the time at which you finish reading each passage and the time at which you finish each set of questions. You can keep track of (C) by circling those questions. And you can choose to notate (D) in some other way (such as stars).

Some people feel comfortable keeping track of the amount of time each question takes. They often use electronic tools that allow them to just click something after each question. The information you get from this would be extremely useful, so if you can do it and if you don't think it'll be a distraction, give it a shot. It can show you things such as what happens when you go through a question very quickly (do I ever make silly mistakes when I answer questions in thirty seconds or less?) or when you spend a lot of time on questions (oh my goodness, did I really spend four minutes on that one problem!?). For a lot of people, keeping track of the time for each question is too much of a distraction, and if that's the case, don't worry about it. Just remember to review two main issues: whether you are accurate when you go through questions quickly, and whether you end up spinning your wheels and spending too much time on particular problems. It should be fairly easy for you to assess this even without using some sort of timing mechanism.

Three: Review Your Work Carefully

The time that you spend reviewing your work is arguably just as important as the time you spend solving problems. You're going to want to review these final five practice exams carefully—they will be the final barometer of your skills and habits.

Make sure, as per our discussions, that you carefully review timing—the pace of your reads and the pace at which you answered questions. Look for questions that took more time than they should and think carefully about why it is those questions took so long. Did you not see the right answer, or did you have problems eliminating a tempting wrong one? Did you have trouble finding the relevant text in the passage? Also think about whether the question was general or specific and look for patterns in the types of questions that cause you to spend too much time.

Also make sure that you review the content of every practice section, in particular the questions that you missed. Break down each miss carefully and try to completely understand exactly why the right answer is right, on your own (then look up the solution online if need be). At the end of Lesson 38, I've listed some resources for finding solutions.

Lastly, make sure you think about your process. What actions did you take or not take that led to you selecting the wrong answer? What was it about your read that ended up causing you trouble, and what could you have noticed in your read that would have helped you get through questions faster?

If the questions for a passage caused you particular trouble, do that passage again, fresh, a few days later. If it still causes you trouble, do it a few days after that.

Finally, set specific goals for each practice exam—try to get a bit faster and a bit more accurate with each one. It's unlikely that your path of improvement will be smooth—you may make a huge leap from one test to the next, only to regress on the following one—however, you should expect overall improvement, and you should set goals for yourself with each practice exam. We all want to go faster and do better, and writing down specific goals about timing and score can help turn those goals into real actions.

Final Thoughts

A lot of test takers are, understandably, nervous about the potential impact of the pressure that they will feel while taking the real exam. Most people that I've talked with express a hope/desire/plan to perform just as well under pressure as they do otherwise...

But is it possible that pressure can actually help one perform *better*? Absolutely.

Pressure helps us focus, and it helps us get the best out of ourselves. It goes back to our cavemen days—we are programmed to run a little faster, jump a little higher, and think a little faster and better when the pressure is on. In the modern world, we can see this manifested in world-class athletes, who often perform at their best when the pressure is at its highest.

Of course, pressure can also have the opposite effect—it can make us perform worse than we would otherwise. I've personally experienced this an unfortunate number of times in my own life.

What determines the impact of pressure? I don't pretend to be a psychologist, and I'm sure the real answer is far too complex for me to understand...

However, I have worked with thousands and thousands of students in my life, and I've gotten very good at predicting which ones will perform better because of pressure, and which ones will perform worse. If I could place bets on this in Vegas, I'd be a millionaire.

In my experience, and with the LSAT students I've worked with, the key difference has been the test taker's trust in his or her own instincts. Whether these instincts are correct or not is one thing—and it determines the ceiling for the score. Trust in these instincts is another, and the student who trusts in his or her instincts is far more likely to match or surpass practice performance; and the student who does not trust in his or her own instincts, no matter the ability level, is very often likely to underperform on the real exam. This is a big reason why I have designed *The LSAT Trainer* exactly the way I have—to help you develop sound instincts that you can and should have confidence in on test day.

Do you feel that you can trust your gut when it comes to how to read a passage or answer questions? Don't go into the exam thinking that you're going to do something different from what you've done in your practice, and don't go into the exam with a list of one hundred things that you want to make sure that you stay on top of—it's not going to happen. Any sort of overly-conscious approach—any approach that makes the rider do the work of the elephant—is likely to be less effective under pressure.

Make sure that you use these final practice sections to firm up your habits—the goal is to have to think less and less about how to read passages and solve questions. The more right actions and right habits, the better chance you have to utilize your abilities at their best when you need them most.

38 READING COMPREHENSION sample section

Instructions

Starting on the next page is the full set of passages and questions that appeared in the Reading Comprehension section of the June '07 administration of the exam. Please go ahead and take this section as realistically as possible.

Practice Section Passage One

For decades, there has been a deep rift between poetry and fiction in the United States, especially in academic settings; graduate writing programs in universities, for example, train students as poets or as writers of fiction, but almost never as both. Both poets and writers of fiction have tended to support this separation, in large part because the current conventional wisdom holds that poetry should be elliptical and lyrical, reflecting inner states and processes of thought or feeling, whereas character and narrative events are the stock-in-trade of fiction.

Certainly it is true that poetry and fiction are distinct genres, but why have specialized education and literary territoriality resulted from this distinction? The answer lies perhaps in a widespread attitude in U.S. culture, which often casts a suspicious eye on the generalist. Those with knowledge and expertise in multiple areas risk charges of dilettantism, as if ability in one field is diluted or compromised by accomplishment in another.

Fortunately, there are signs that the bias against writers who cross generic boundaries is diminishing; several recent writers are known and respected for their work in both genres. One important example of this trend is Rita Dove, an African American writer highly acclaimed for both her poetry and her fiction. A few years ago, speaking at a conference entitled "Poets Who Write Fiction," Dove expressed gentle incredulity about the habit of segregating the genres. She had grown up reading and loving both fiction and poetry, she said, unaware of any purported danger lurking in attempts to mix the two. She also studied for some time in Germany, where, she observes, "Poets write plays, novelists compose libretti, playwrights write novels—they would not understand our restrictiveness."

It makes little sense, Dove believes, to persist in the restrictive approach to poetry and fiction prevalent in the U.S., because each genre shares in the nature of the other. Indeed, her poetry offers example after example of what can only be properly regarded as lyric narrative. Her use of language in these poems is undeniably lyrical—that is, it evokes emotion and inner states without requiring the reader to organize ideas or events in a particular linear structure. Yet this lyric expression simultaneously presents the elements of a plot in such a way that the reader is led repeatedly to take account of clusters of narrative details within the lyric flow. Thus while the language is lyrical, it often comes to constitute, cumulatively, a work of narrative fiction. Similarly, many passages in her fiction, though undeniably prose, achieve the status of lyric narrative through the use of poetic rhythms and elliptical expression. In short, Dove bridges the gap between poetry and fiction not only by writing in both genres, but also by fusing the two genres within individual works.

June 2007 Exam, Passage 1

1. Which one of the following most accurately expresses the main point of the passage?

(A) Rita Dove's work has been widely acclaimed primarily because of the lyrical elements she has introduced into her fiction.
(B) Rita Dove's lyric narratives present clusters of narrative detail in order to create a cumulative narrative without requiring the reader to interpret it in a linear manner.
(C) Working against a bias that has long been dominant in the U.S., recent writers like Rita Dove have shown that the lyrical use of language can effectively enhance narrative fiction.
(D) Unlike many of her U.S. contemporaries, Rita Dove writes without relying on the traditional techniques associated with poetry and fiction.
(E) Rita Dove's successful blending of poetry and fiction exemplifies the recent trend away from the rigid separation of the two genres that has long been prevalent in the U.S.

2. Which one of the following is most analogous to the literary achievements that the author attributes to Dove?

(A) A chef combines nontraditional cooking methods and traditional ingredients from disparate world cuisines to devise new recipes.
(B) A professor of film studies becomes a film director and succeeds, partly due to a wealth of theoretical knowledge of filmmaking.
(C) An actor who is also a theatrical director teams up with a public health agency to use street theater to inform the public about health matters.
(D) A choreographer defies convention and choreographs dances that combine elements of both ballet and jazz dance.
(E) A rock musician records several songs from previous decades but introduces extended guitar solos into each one.

3. According to the passage, in the U.S. there is a widely held view that

(A) poetry should not involve characters or narratives
(B) unlike the writing of poetry, the writing of fiction is rarely an academically serious endeavor
(C) graduate writing programs focus on poetry to the exclusion of fiction
(D) fiction is most aesthetically effective when it incorporates lyrical elements
(E) European literary cultures are suspicious of generalists

Practice Section Passage One

4. The author's attitude toward the deep rift between poetry and fiction in the U.S. can be most accurately described as one of

(A) perplexity as to what could have led to the development of such a rift
(B) astonishment that academics have overlooked the existence of the rift
(C) ambivalence toward the effect the rift has had on U.S. literature
(D) pessimism regarding the possibility that the rift can be overcome
(E) disapproval of attitudes and presuppositions underlying the rift

5. In the passage the author conjectures that a cause of the deep rift between fiction and poetry in the United States may be that

(A) poets and fiction writers each tend to see their craft as superior to the others' craft
(B) the methods used in training graduate students in poetry are different from those used in training graduate students in other literary fields
(C) publishers often pressure writers to concentrate on what they do best
(D) a suspicion of generalism deters writers from dividing their energies between the two genres
(E) fiction is more widely read and respected than poetry

6. In the context of the passage, the author's primary purpose in mentioning Dove's experience in Germany (lines 32–36) *(last sentence of third paragraph)* is to

(A) suggest that the habit of treating poetry and fiction as nonoverlapping domains is characteristic of English-speaking societies but not others
(B) point to an experience that reinforced Dove's conviction that poetry and fiction should not be rigidly separated
(C) indicate that Dove's strengths as a writer derive in large part from the international character of her academic background
(D) present an illuminating biographical detail about Dove in an effort to enhance the human interest appeal of the passage
(E) indicate what Dove believes to be the origin of her opposition to the separation of fiction and poetry in the U.S.

7. It can be inferred from the passage that the author would be most likely to believe which one of the following?

(A) Each of Dove's works can be classified as either primarily poetry or primarily fiction, even though it may contain elements of both.
(B) The aesthetic value of lyric narrative resides in its representation of a sequence of events, rather than in its ability to evoke inner states.
(C) The way in which Dove blends genres in her writing is without precedent in U.S. writing.
(D) Narrative that uses lyrical language is generally aesthetically superior to pure lyric poetry.
(E) Writers who successfully cross the generic boundary between poetry and fiction often try their hand at genres such as drama as well.

8. If this passage had been excerpted from a longer text, which one of the following predictions about the near future of U.S. literature would be most likely to appear in that text?

(A) The number of writers who write both poetry and fiction will probably continue to grow.
(B) Because of the increased interest in mixed genres, the small market for pure lyric poetry will likely shrink even further.
(C) Narrative poetry will probably come to be regarded as a subgenre of fiction.
(D) There will probably be a rise in specialization among writers in university writing programs.
(E) Writers who continue to work exclusively in poetry or fiction will likely lose their audiences.

Practice Section Passage Two

The two passages discuss recent scientific research on music. They are adapted from two different papers presented at a scholarly conference.

Passage A

Did music and human language originate separately or together? Both systems use intonation and rhythm to communicate emotions. Both can be produced vocally or with tools, and people can produce both music and language silently to themselves. Brain imaging studies suggest that music and language are part of one large, vastly complicated, neurological system for processing sound. In fact, fewer differences than similarities exist between the neurological processing of the two. One could think of the two activities as different radio programs that can be broadcast over the same hardware. One noteworthy difference, though, is that, generally speaking, people are better at language than music. In music, anyone can listen easily enough, but most people do not perform well, and in many cultures composition is left to specialists. In language, by contrast, nearly everyone actively performs and composes. Given their shared neurological basis, it appears that music and language evolved together as brain size increased over the course of hominid evolution. But the primacy of language over music that we can observe today suggests that language, not music, was the primary function natural selection operated on. Music, it would seem, had little adaptive value of its own, and most likely developed on the coattails of language.

Passage B

Darwin claimed that since "neither the enjoyment nor the capacity of producing musical notes are faculties of the least [practical] use to man they must be ranked amongst the most mysterious with which he is endowed." I suggest that the enjoyment of and the capacity to produce musical notes are faculties of indispensable use to mothers and their infants and that it is in the emotional bonds created by the interaction of mother and child that we can discover the evolutionary origins of human music. Even excluding lullabies, which parents sing to infants, human mothers and infants under six months of age engage in ritualized, sequential behaviors, involving vocal, facial, and bodily interactions. Using face-to-face mother-infant interactions filmed at 24 frames per second, researchers have shown that mothers and infants jointly construct mutually improvised interactions in which each partner tracks the actions of the other. Such episodes last from one-half second to three seconds and are composed of musical elements—variations in pitch, rhythm, timbre, volume, and tempo. What evolutionary advantage would such behavior have? In the course of hominid evolution, brain size increased rapidly. Contemporaneously, the increase in bipedality caused the birth canal to narrow. This resulted in hominid infants being born ever-more prematurely, leaving them much more helpless at birth. This helplessness necessitated longer, better maternal care. Under such conditions, the emotional bonds created in the premusical mother-infant interactions we observe in Homo sapiens today—behavior whose neurological basis essentially constitutes the capacity to make and enjoy music—would have conferred considerable evolutionary advantage.

June 2007 Exam, Passage 2

9. Both passages were written primarily in order to answer which one of the following questions?

(A) What evolutionary advantage did larger brain size confer on early hominids?
(B) Why do human mothers and infants engage in bonding behavior that is composed of musical elements?
(C) What are the evolutionary origins of the human ability to make music?
(D) Do the human abilities to make music and to use language depend on the same neurological systems?
(E) Why are most people more adept at using language than they are at making music?

10. Each of the two passages mentions the relation of music to

(A) bonding between humans
(B) human emotion
(C) neurological research
(D) the increasing helplessness of hominid infants
(E) the use of tools to produce sounds

11. It can be inferred that the authors of the two passages would be most likely to disagree over whether

(A) the increase in hominid brain size necessitated earlier births
(B) fewer differences than similarities exist between the neurological processing of music and human language
(C) brain size increased rapidly over the course of human evolution
(D) the capacity to produce music has great adaptive value to humans
(E) mother-infant bonding involves temporally patterned vocal interactions

Practice Section Passage Two

12. The authors would be most likely to agree on the answer to which one of the following questions regarding musical capacity in humans?

(A) Does it manifest itself in some form in early infancy?
(B) Does it affect the strength of mother-infant bonds?
(C) Is it at least partly a result of evolutionary increases in brain size?
(D) Did its evolution spur the development of new neurological systems?
(E) Why does it vary so greatly among different individuals?

13. Which one of the following principles underlies the arguments in both passages?

(A) Investigations of the evolutionary origins of human behaviors must take into account the behavior of nonhuman animals.
(B) All human capacities can be explained in terms of the evolutionary advantages they offer.
(C) The fact that a single neurological system underlies two different capacities is evidence that those capacities evolved concurrently.
(D) The discovery of the neurological basis of a human behavior constitutes the discovery of the essence of that behavior.
(E) The behavior of modern-day humans can provide legitimate evidence concerning the evolutionary origins of human abilities.

14. Which one of the following most accurately characterizes a relationship between the two passages?

(A) Passage A and passage B use different evidence to draw divergent conclusions.
(B) Passage A poses the question that passage B attempts to answer.
(C) Passage A proposes a hypothesis that passage B attempts to substantiate with new evidence.
(D) Passage A expresses a stronger commitment to its hypothesis than does passage B.
(E) Passage A and passage B use different evidence to support the same conclusion.

Practice Section Passage Three

The World Wide Web, a network of electronically produced and interconnected (or "linked") sites, called pages, that are accessible via personal computer, raises legal issues about the rights of owners of intellectual property, notably those who create documents for inclusion on Web pages. Some of these owners of intellectual property claim that unless copyright law is strengthened, intellectual property on the Web will not be protected from copyright infringement. Web users, however, claim that if their ability to access information on Web pages is reduced, the Web cannot live up to its potential as an open, interactive medium of communication.

The debate arises from the Web's ability to link one document to another. Links between sites are analogous to the inclusion in a printed text of references to other works, but with one difference: the cited document is instantly retrievable by a user who activates the link. This immediate accessibility creates a problem, since current copyright laws give owners of intellectual property the right to sue a distributor of unauthorized copies of their material even if that distributor did not personally make the copies. If person A, the author of a document, puts the document on a Web page, and person B, the creator of another Web page, creates a link to A's document, is B committing copyright infringement?

To answer this question, it must first be determined who controls distribution of a document on the Web. When A places a document on a Web page, this is comparable to recording an outgoing message on one's telephone answering machine for others to hear. When B creates a link to A's document, this is akin to B's giving out A's telephone number, thereby allowing third parties to hear the outgoing message for themselves. Anyone who calls can listen to the message; that is its purpose. While B's link may indeed facilitate access to A's document, the crucial point is that A, simply by placing that document on the Web, is thereby offering it for distribution. Therefore, even if B leads others to the document, it is A who actually controls access to it. Hence creating a link to a document is not the same as making or distributing a copy of that document. Moreover, techniques are already available by which A can restrict access to a document. For example, A may require a password to gain entry to A's Web page, just as a telephone owner can request an unlisted number and disclose it only to selected parties. Such a solution would compromise the openness of the Web somewhat, but not as much as the threat of copyright infringement litigation. Changing copyright law to benefit owners of intellectual property is thus ill-advised because it would impede the development of the Web as a public forum dedicated to the free exchange of ideas.

June 2007 Exam, Passage 3

15. Which one of the following most accurately expresses the main point of the passage?

(A) Since distribution of a document placed on a Web page is controlled by the author of that page rather than by the person who creates a link to the page, creating such a link should not be considered copyright infringement.
(B) Changes in copyright law in response to the development of Web pages and links are ill-advised unless such changes amplify rather than restrict the free exchange of ideas necessary in a democracy.
(C) People who are concerned about the access others may have to the Web documents they create can easily prevent such access without inhibiting the rights of others to exchange ideas freely.
(D) Problems concerning intellectual property rights created by new forms of electronic media are not insuperably difficult to resolve if one applies basic commonsense principles to these problems.
(E) Maintaining a free exchange of ideas on the Web offers benefits that far outweigh those that might be gained by a small number of individuals if a radical alteration of copyright laws aimed at restricting the Web's growth were allowed.

16. Which one of the following is closest in meaning to the term "strengthened" as that term is used in line 8 *(middle of first paragraph)* of the passage?

(A) made more restrictive
(B) made uniform worldwide
(C) made to impose harsher penalties
(D) dutifully enforced
(E) more fully recognized as legitimate

17. With which one of the following claims about documents placed on Web pages would the author be most likely to agree?

(A) Such documents cannot receive adequate protection unless current copyright laws are strengthened.
(B) Such documents cannot be protected from unauthorized distribution without significantly diminishing the potential of the Web to be a widely used form of communication.
(C) The nearly instantaneous access afforded by the Web makes it impossible in practice to limit access to such documents.
(D) Such documents can be protected from copyright infringement with the least damage to the public interest only by altering existing legal codes.
(E) Such documents cannot fully contribute to the Web's free exchange of ideas unless their authors allow them to be freely accessed by those who wish to do so.

Practice Section Passage Three

18. Based on the passage, the relationship between strengthening current copyright laws and relying on passwords to restrict access to a Web document is most analogous to the relationship between

(A) allowing everyone use of a public facility and restricting its use to members of the community
(B) outlawing the use of a drug and outlawing its sale
(C) prohibiting a sport and relying on participants to employ proper safety gear
(D) passing a new law and enforcing that law
(E) allowing unrestricted entry to a building and restricting entry to those who have been issued a badge

19. The passage most strongly implies which one of the following?

(A) There are no creators of links to Web pages who are also owners of intellectual property on Web pages.
(B) The person who controls access to a Web page document should be considered the distributor of that document.
(C) Rights of privacy should not be extended to owners of intellectual property placed on the Web.
(D) Those who create links to Web pages have primary control over who reads the documents on those pages.
(E) A document on a Web page must be converted to a physical document via printing before copyright infringement takes place.

20. According to the passage, which one of the following features of outgoing messages left on telephone answering machines is most relevant to the debate concerning copyright infringement?

(A) Such messages are carried by an electronic medium of communication.
(B) Such messages are not legally protected against unauthorized distribution.
(C) Transmission of such messages is virtually instantaneous.
(D) People do not usually care whether or not others might record such messages.
(E) Such messages have purposely been made available to anyone who calls that telephone number.

21. The author's discussion of telephone answering machines serves primarily to

(A) compare and contrast the legal problems created by two different sorts of electronic media
(B) provide an analogy to illustrate the positions taken by each of the two sides in the copyright debate
(C) show that the legal problems produced by new communication technology are not themselves new
(D) illustrate the basic principle the author believes should help determine the outcome of the copyright debate
(E) show that telephone use also raises concerns about copyright infringement

22. According to the passage, present copyright laws

(A) allow completely unrestricted use of any document placed by its author on a Web page
(B) allow those who establish links to a document on a Web page to control its distribution to others
(C) prohibit anyone but the author of a document from making a profit from the document's distribution
(D) allow the author of a document to sue anyone who distributes the document without permission
(E) should be altered to allow more complete freedom in the exchange of ideas

Practice Section Passage Four

In tracing the changing face of the Irish landscape, scholars have traditionally relied primarily on evidence from historical documents. However, such documentary sources provide a fragmentary record at best. Reliable accounts are very scarce for many parts of Ireland prior to the seventeenth century, and many of the relevant documents from the sixteenth and seventeenth centuries focus selectively on matters relating to military or commercial interests.

Studies of fossilized pollen grains preserved in peats and lake muds provide an additional means of investigating vegetative landscape change. Details of changes in vegetation resulting from both human activities and natural events are reflected in the kinds and quantities of minute pollen grains that become trapped in sediments. Analysis of samples can identify which kinds of plants produced the preserved pollen grains and when they were deposited, and in many cases the findings can serve to supplement or correct the documentary record.

For example, analyses of samples from Long Lough in County Down have revealed significant patterns of cereal-grain pollen beginning by about 400 A.D. The substantial clay content of the soil in this part of Down makes cultivation by primitive tools difficult. Historians thought that such soils were not tilled to any significant extent until the introduction of the moldboard plough to Ireland in the seventh century A.D. Because cereal cultivation would have required tilling of the soil, the pollen evidence indicates that these soils must indeed have been successfully tilled before the introduction of the new plough.

Another example concerns flax cultivation in County Down, one of the great linen-producing areas of Ireland during the eighteenth century. Some aspects of linen production in Down are well documented, but the documentary record tells little about the cultivation of flax, the plant from which linen is made, in that area. The record of eighteenth-century linen production in Down, together with the knowledge that flax cultivation had been established in Ireland centuries before that time, led some historians to surmise that this plant was being cultivated in Down before the eighteenth century. But pollen analyses indicate that this is not the case; flax pollen was found only in deposits laid down since the eighteenth century.

It must be stressed, though, that there are limits to the ability of the pollen record to reflect the vegetative history of the landscape. For example, pollen analyses cannot identify the species, but only the genus or family, of some plants. Among these is madder, a cultivated dye plant of historical importance in Ireland. Madder belongs to a plant family that also comprises various native weeds, including goosegrass. If madder pollen were present in a deposit it would be indistinguishable from that of uncultivated native species.

June 2007 exam, passage 4

23. Which one of the following most accurately expresses the main point of the passage?

(A) Analysis of fossilized pollen is a useful means of supplementing and in some cases correcting other sources of information regarding changes in the Irish landscape.
(B) Analyses of historical documents, together with pollen evidence, have led to the revision of some previously accepted hypotheses regarding changes in the Irish landscape.
(C) Analysis of fossilized pollen has proven to be a valuable tool in the identification of ancient plant species.
(D) Analysis of fossilized pollen has provided new evidence that the cultivation of such crops as cereal grains, flax, and madder had a significant impact on the landscape of Ireland.
(E) While pollen evidence can sometimes supplement other sources of historical information, its applicability is severely limited, since it cannot be used to identify plant species.

24. The passage indicates that pollen analyses have provided evidence against which one of the following views?

(A) The moldboard plough was introduced into Ireland in the seventh century.
(B) In certain parts of County Down, cereal grains were not cultivated to any significant extent before the seventh century.
(C) In certain parts of Ireland, cereal grains have been cultivated continuously since the introduction of the moldboard plough.
(D) Cereal grain cultivation requires successful tilling of the soil.
(E) Cereal grain cultivation began in County Down around 400 A.D.

Practice Section Passage Four

25. The phrase "documentary record" (lines 20 and 37) *(very end of second paragraph and second sentence of fourth paragraph)* primarily refers to

(A) documented results of analyses of fossilized pollen
(B) the kinds and quantities of fossilized pollen grains preserved in peats and lake muds
(C) written and pictorial descriptions by current historians of the events and landscapes of past centuries
(D) government and commercial records, maps, and similar documents produced in the past that recorded conditions and events of that time
(E) articles, books, and other documents by current historians listing and analyzing all the available evidence regarding a particular historical period

26. The passage indicates that prior to the use of pollen analysis in the study of the history of the Irish landscape, at least some historians believed which one of the following?

(A) The Irish landscape had experienced significant flooding during the seventeenth century.
(B) Cereal grain was not cultivated anywhere in Ireland until at least the seventh century.
(C) The history of the Irish landscape during the sixteenth and seventeenth centuries was well documented.
(D) Madder was not used as a dye plant in Ireland until after the eighteenth century.
(E) The beginning of flax cultivation in County Down may well have occurred before the eighteenth century.

27. Which one of the following most accurately describes the relationship between the second paragraph and the final paragraph?

(A) The second paragraph proposes a hypothesis for which the final paragraph offers a supporting example.
(B) The final paragraph describes a problem that must be solved before the method advocated in the second paragraph can be considered viable.
(C) The final paragraph qualifies the claim made in the second paragraph.
(D) The second paragraph describes a view against which the author intends to argue, and the final paragraph states the author's argument against that view.
(E) The final paragraph offers procedures to supplement the method described in the second paragraph.

Sample Solution Passage One

Here are real-time solutions for the section that you just tried. The thoughts represent those that a high scorer might have during the exam.

For decades, there has been a deep rift between poetry and fiction in the United States, especially in academic settings; graduate writing programs in universities, for example, train students as poets or as writers of fiction, but almost never as both. Both poets and writers of fiction have tended to support this separation, in large part because the current conventional wisdom holds that poetry should be elliptical and lyrical, reflecting inner states and processes of thought or feeling, whereas character and narrative events are the stock-in-trade of fiction.

This is likely background, and the issue is going to be about some difference between poetry and fiction.

Certainly it is true that poetry and fiction are distinct genres, but why have specialized education and literary territoriality resulted from this distinction? The answer lies perhaps in a widespread attitude in U.S. culture, which often casts a suspicious eye on the generalist. Those with knowledge and expertise in multiple areas risk charges of dilettantism, as if ability in one field is diluted or compromised by accomplishment in another.

Nope. The issue is treating poetry and fiction as distinct versus teaching them together. Attributes separation to widespread prejudice against generalist; author seems to support bringing together.

Fortunately, there are signs that the bias against writers who cross generic boundaries is diminishing; several recent writers are known and respected for their work in both genres. One important example of this trend is Rita Dove, an African American writer highly acclaimed for both her poetry and her fiction. A few years ago, speaking at a conference entitled "Poets Who Write Fiction," Dove expressed gentle incredulity about the habit of segregating the genres. She had grown up reading and loving both fiction and poetry, she said, unaware of any purported danger lurking in attempts to mix the two. She also studied for some time in Germany, where, she observes, "Poets write plays, novelists compose libretti, playwrights write novels—they would not understand our restrictiveness."

This line confirms author's opinion on matter: she clearly thinks separation isn't good.

Rita Dove example supports teaching poetry and fiction together.

It makes little sense, Dove believes, to persist in the restrictive approach to poetry and fiction prevalent in the U.S., because each genre shares in the nature of the other. Indeed, her poetry offers example after example of what can only be properly regarded as lyric narrative. Her use of language in these poems is undeniably lyrical—that is, it evokes emotion and inner states without requiring the reader to organize ideas or events in a particular linear structure. Yet this lyric expression simultaneously presents the elements of a plot in such a way that the reader is led repeatedly to take account of clusters of narrative details within the lyric flow. Thus while the language is lyrical, it often comes to constitute, cumulatively, a work of narrative fiction. Similarly, many passages in her fiction, though undeniably prose, achieve the status of lyric narrative through the use of poetic rhythms and elliptical expression. In short, Dove bridges the gap between poetry and fiction not only by writing in both genres, but also by fusing the two genres within individual works.

A lot more about Rita Dove—not only is she support for idea, she's also herself a main subject of passage.

June 2007 Exam, Passage 1

Sample Solution Passage One

1. Which one of the following most accurately expresses the main point of the passage?

(A) Rita Dove's work has been widely acclaimed primarily because of the lyrical elements she has introduced into her fiction.
(B) Rita Dove's lyric narratives present clusters of narrative detail in order to create a cumulative narrative without requiring the reader to interpret it in a linear manner.
(C) Working against a bias that has long been dominant in the U.S., recent writers like Rita Dove have shown that the lyrical use of language can effectively enhance narrative fiction.
(D) Unlike many of her U.S. contemporaries, Rita Dove writes without relying on the traditional techniques associated with poetry and fiction.
(E) Rita Dove's successful blending of poetry and fiction exemplifies the recent trend away from the rigid separation of the two genres that has long been prevalent in the U.S.

Stem: Looking for answer that discusses fiction and poetry being together versus apart, and/or Rita Dove's melding of fiction and poetry.

Elimination: (A) overemphasizes a secondary detail. Same with (B). (C) is a little too specific, but better than (A) and (B)—keep it. (D) doesn't match the text. (E) is a good match for the text.

Confirmation: (C) is definitely too specific. (E) matches text (fortunate recent trend / Rita Dove blends) and is correct.

2. Which one of the following is most analogous to the literary achievements that the author attributes to Dove?

(A) A chef combines nontraditional cooking methods and traditional ingredients from disparate world cuisines to devise new recipes.
(B) A professor of film studies becomes a film director and succeeds, partly due to a wealth of theoretical knowledge of filmmaking.
(C) An actor who is also a theatrical director teams up with a public health agency to use street theater to inform the public about health matters.
(D) A choreographer defies convention and choreographs dances that combine elements of both ballet and jazz dance.
(E) A rock musician records several songs from previous decades but introduces extended guitar solos into each one.

Stem: We know she works in two genres and brings aspects of fiction into poetry and poetry into fiction.

Elimination: (A) isn't a great match because she doesn't create a new "genre" or style of writing, and she doesn't combine traditional and untraditional. (B) is not like Rita Dove at all. Neither is (C). (D) is a great match—blending of two genres—keep it. Not sure how (E) relates to Rita.

Confirmation: (D) is the only attractive answer—does Rita defy convention? Yes, and she blends elements. (D) is correct.

3. According to the passage, in the U.S. there is a widely held view that

(A) poetry should not involve characters or narratives
(B) unlike the writing of poetry, the writing of fiction is rarely an academically serious endeavor
(C) graduate writing programs focus on poetry to the exclusion of fiction
(D) fiction is most aesthetically effective when it incorporates lyrical elements
(E) European literary cultures are suspicious of generalists

Stem: General American views are discussed mostly in the first and second paragraphs (poetry and fiction should be separate, suspicion of generalist) and just a little bit at beginning of fourth (restrictions).

Elimination: (A) seems a bit too strong, but characters and narrative were discussed in terms of fiction—keep it. (B) doesn't match text and doesn't make reasonable sense. (C) doesn't match what the text states. (D) goes too far beyond text. (E) does not match text (it's Americans who are suspicious).

Confirmation: (A) is the only viable answer—can I confirm it? Yes —character and narrative are elements of fiction, and there is a widely-held view that fiction and poetry shouldn't have mingling of characteristics. (A) is correct.

Sample Solution Passage One

4. The author's attitude toward the deep rift between poetry and fiction in the U.S. can be most accurately described as one of

(A) perplexity as to what could have led to the development of such a rift
(B) astonishment that academics have overlooked the existence of the rift
(C) ambivalence toward the effect the rift has had on U.S. literature
(D) pessimism regarding the possibility that the rift can be overcome
(E) disapproval of attitudes and presuppositions underlying the rift

Stem: I know the author thinks the rift is unnecessary.

Elimination: I can eliminate (A)—she's not confused at why it exists. (B) also clearly misrepresents. "Ambivalence" in (C) doesn't match her tone, nor does "pessimism" in (D). (E) is more negative than her tone was, but it's the only viable answer.

Confirmation: She doesn't believe there should be a rift, and she doesn't buy the reasons for there being one—(E) states as much, and (E) is correct.

5. In the passage the author conjectures that a cause of the deep rift between fiction and poetry in the United States may be that
(A) poets and fiction writers each tend to see their craft as superior to the others' craft
(B) the methods used in training graduate students in poetry are different from those used in training graduate students in other literary fields
(C) publishers often pressure writers to concentrate on what they do best
(D) a suspicion of generalism deters writers from dividing their energies between the two genres
(E) fiction is more widely read and respected than poetry

Stem: Not sure what the answer will be, but one place author did discuss potential cause is second paragraph—suspicion toward generalist.

Elimination: Author didn't discuss feelings of superiority—can eliminate (A). Training? Not sure—maybe leave (B). (C) is not discussed by the passage. (D) matches the second paragraph—it's probably correct. (E) does not match text.

Confirmation: Training is discussed, but the methods of training and specifically methods of training poets relative to all other literary fields is not. (B) doesn't match the text. (D) matches the text nicely and the beginning of the third paragraph helps confirm that the suspicion of generalism is something that the author thinks "deters writers."

6. In the context of the passage, the author's primary purpose in mentioning Dove's experience in Germany (lines 32–36) *(last sentence of third paragraph)* is to

(A) suggest that the habit of treating poetry and fiction as nonoverlapping domains is characteristic of English-speaking societies but not others
(B) point to an experience that reinforced Dove's conviction that poetry and fiction should not be rigidly separated
(C) indicate that Dove's strengths as a writer derive in large part from the international character of her academic background
(D) present an illuminating biographical detail about Dove in an effort to enhance the human interest appeal of the passage
(E) indicate what Dove believes to be the origin of her opposition to the separation of fiction and poetry in the U.S.

Stem: The description puts Germany in sharp contrast to the U.S. —could be to support author's views or help explain Dove's development.

Elimination: (A) is tempting, but the "English-speaking but not others" part goes too far beyond what I know (which is just U.S. versus. Germany). (B) looks really good—keep it. (C) misrepresents the text a bit—her "strengths" and such are not really discussed. (D) is silly—"enhance human interest" is not really a reasoning structure issue. (E) is far removed from the text.

Confirmation: (B) is the only attractive answer—looking back through, the text seems to match up with (B).

Sample Solution Passage One

7. It can be inferred from the passage that the author would be most likely to believe which one of the following?

(A) Each of Dove's works can be classified as either primarily poetry or primarily fiction, even though it may contain elements of both.
(B) The aesthetic value of lyric narrative resides in its representation of a sequence of events, rather than in its ability to evoke inner states.
(C) The way in which Dove blends genres in her writing is without precedent in U.S. writing.
(D) Narrative that uses lyrical language is generally aesthetically superior to pure lyric poetry.
(E) Writers who successfully cross the generic boundary between poetry and fiction often try their hand at genres such as drama as well.

Stem: Pretty open-ended question. Let's see where the answers go.

Elimination: (A) is an "ugly-looking" right answer, I think—after all, it's not like she's created some genre in between poetry and fiction. The author doesn't discuss the opinion referred to in (B). Who knows if Dove is without precedent—certainly the author doesn't say that. The author doesn't offer a comparative opinion that matches (D). (E) goes well beyond text.

Confirmation: (A) is the only surviving answer. Does it match text? Sure. Author discusses Dove writing poetry and fiction, with influences, but not some middle-genre between the two.

8. If this passage had been excerpted from a longer text, which one of the following predictions about the near future of U.S. literature would be most likely to appear in that text?

(A) The number of writers who write both poetry and fiction will probably continue to grow.
(B) Because of the increased interest in mixed genres, the small market for pure lyric poetry will likely shrink even further.
(C) Narrative poetry will probably come to be regarded as a subgenre of fiction.
(D) There will probably be a rise in specialization among writers in university writing programs.
(E) Writers who continue to work exclusively in poetry or fiction will likely lose their audiences.

Stem: Predictions about near future? What? Only "change" discussed is greater acceptance for bridging of poetry and fiction.

Elimination: (A) seems reasonable, I guess. (B) goes beyond the text and doesn't really make sense. (C) goes well beyond what the text says. (D) is the opposite of bridging. (E) goes well beyond the text—just because some authors bridge doesn't mean others that don't will be impacted.

Confirmation: (A) is the only surviving answer. It's not a slam-dunk, but considering there wasn't much cross-over before, the bias against the cross-over is diminishing, and some successful writers today are cross-over writers. (A) is the only good answer.

Sample Solution Passage Two

The two passages discuss recent scientific research on music. They are adapted from two different papers presented at a scholarly conference.

Passage A

Did music and human language originate separately or together? Both systems use intonation and rhythm to communicate emotions. Both can be produced vocally or with tools, and people can produce both music and language silently to themselves. Brain imaging studies suggest that music and language are part of one large, vastly complicated, neurological system for processing sound. In fact, fewer differences than similarities exist between the neurological processing of the two. One could think of the two activities as different radio programs that can be broadcast over the same hardware. One noteworthy difference, though, is that, generally speaking, people are better at language than music. In music, anyone can listen easily enough, but most people do not perform well, and in many cultures composition is left to specialists. In language, by contrast, nearly everyone actively performs and composes. Given their shared neurological basis, it appears that music and language evolved together as brain size increased over the course of hominid evolution. But the primacy of language over music that we can observe today suggests that language, not music, was the primary function natural selection operated on. Music, it would seem, had little adaptive value of its own, and most likely developed on the coattails of language.

Likely the main issue for both passages: Did musical and linguistic abilities originate together or separately?

Two abilities linked, but people better at language than music.

Author's main point: both evolved together, but music was secondary consequence of language.

Passage B

Darwin claimed that since "neither the enjoyment nor the capacity of producing musical notes are faculties of the least [practical] use to man they must be ranked amongst the most mysterious with which he is endowed." I suggest that the enjoyment of and the capacity to produce musical notes are faculties of indispensable use to mothers and their infants and that it is in the emotional bonds created by the interaction of mother and child that we can discover the evolutionary origins of human music. Even excluding lullabies, which parents sing to infants, human mothers and infants under six months of age engage in ritualized, sequential behaviors, involving vocal, facial, and bodily interactions. Using face-to-face mother-infant interactions filmed at 24 frames per second, researchers have shown that mothers and infants jointly construct mutually improvised interactions in which each partner tracks the actions of the other. Such episodes last from one-half second to three seconds and are composed of musical elements—variations in pitch, rhythm, timbre, volume, and tempo. What evolutionary advantage would such behavior have? In the course of hominid evolution, brain size increased rapidly. Contemporaneously, the increase in bipedality caused the birth canal to narrow. This resulted in hominid infants being born ever-more prematurely, leaving them much more helpless at birth. This helplessness necessitated longer, better maternal care. Under such conditions, the emotional bonds created in the premusical mother-infant interactions we observe in Homo sapiens today—behavior whose neurological basis essentially constitutes the capacity to make and enjoy music—would have conferred considerable evolutionary advantage.

Suggests another explanation for evolution of music: for mother and child relationship.

All support for that hypothesis.

This passage is not about language at all. Central issue for both passages is instead perhaps: What are the evolutionary origins of musical ability?

June 2007 Exam, Passage 2

Sample Solution Passage Two

9. Both passages were written primarily in order to answer which one of the following questions?

(A) What evolutionary advantage did larger brain size confer on early hominids?
(B) Why do human mothers and infants engage in bonding behavior that is composed of musical elements?
(C) What are the evolutionary origins of the human ability to make music?
(D) Do the human abilities to make music and to use language depend on the same neurological systems?
(E) Why are most people more adept at using language than they are at making music?

Stem: Just thought about this—evolutionary origins of musical ability.

Elimination: (A) isn't central focus of either, and (B) isn't related to first passage. (C) is definitely correct. (D) is not relevant to second passage, nor is (E).

Confirmation: (C) matches prediction, and (C) is correct.

10. Each of the two passages mentions the relation of music to

(A) bonding between humans
(B) human emotion
(C) neurological research
(D) the increasing helplessness of hominid infants
(E) the use of tools to produce sounds

Stem: Not sure—could be a lot of things.

Elimination: Shoot—(E) is the only one that is clearly not right. Time to go digging.

Confirmation: Bonding between humans (A) is key to Passage B, mentioned slightly, maybe (communicate emotion) in Passage A. Leave. Wait—(B) is actually a better match for the text—emotion is mentioned specifically in both passages. I don't think neurological research is mentioned in the second passage—nope, it's not. And (D) is not actually discussed in the second passage. (B) is correct.

11. It can be inferred that the authors of the two passages would be most likely to disagree over whether

(A) the increase in hominid brain size necessitated earlier births
(B) fewer differences than similarities exist between the neurological processing of music and human language
(C) brain size increased rapidly over the course of human evolution
(D) the capacity to produce music has great adaptive value to humans
(E) mother-infant bonding involves temporally patterned vocal interactions

Stem: One thing I know—disagree about evolutionary development of musical ability. Could be something else though.

Elimination: Passage B discusses this, A doesn't—cut (A). They don't disagree about similarities versus differences—cut (B). Both actually mention (C), and it's not a very debatable point—cut. (D) is an answer I expected—leave it. I know there is nothing in Passage A related to (E)—so I can cut that answer too.

Confirmation: The writer of A thinks musical ability is a secondary consequence of speaking ability; the writer of B gives a critically important reason for musical ability—mother and child bonding. Do I have proof for "adaptive value?"—yes—last paragraph—"What evolutionary value..." author talks of bonding in terms of adaptive value, and (D) is correct.

Sample Solution Passage Two

12. The authors would be most likely to agree on the answer to which one of the following questions regarding musical capacity in humans?

(A) Does it manifest itself in some form in early infancy?
(B) Does it affect the strength of mother-infant bonds?
(C) Is it at least partly a result of evolutionary increases in brain size?
(D) Did its evolution spur the development of new neurological systems?
(E) Why does it vary so greatly among different individuals?

Stem: What do they agree about? Not sure—time to eliminate.

Elimination: (A) is discussed in the second passage, but not the first. Same with (B). Like the language (at least partly) in (C)—I know I saw this in the second passage, think I saw in first—keep it. Don't think (D) is discussed in either passage. Neither is (E)—the "why" gives it away immediately as being wrong.

Confirmation: (C) is the only remaining answer—author of Passage A discusses it toward the bottom, and the second passage has it about two-thirds of the way down. (C) is correct.

13. Which one of the following principles underlies the arguments in both passages?

(A) Investigations of the evolutionary origins of human behaviors must take into account the behavior of nonhuman animals.
(B) All human capacities can be explained in terms of the evolutionary advantages they offer.
(C) The fact that a single neurological system underlies two different capacities is evidence that those capacities evolved concurrently.
(D) The discovery of the neurological basis of a human behavior constitutes the discovery of the essence of that behavior.
(E) The behavior of modern-day humans can provide legitimate evidence concerning the evolutionary origins of human abilities.

Stem: Again, something the passages have in common. Not sure—time to eliminate.

Elimination: Don't think (A) is a principle of either argument. (B) is a good answer—they both try to explain in terms of evolution because they work under assumption that evolutionary purpose is what explains change. I think that's right. (C) is not relevant to the second passage. (D) over-emphasizes neurology. (E) isn't an answer I expected, but it does underlie the argumentative structure for both arguments—they both use the behavior of modern day humans as evidence for their points about evolution. Leave (E).

Confirmation: Looking back at (B)—"all" is simply too strong, especially relative to *both* arguments. If (E) didn't underlie both of them, they couldn't use the reasoning they both use. (E) is right.

14. Which one of the following most accurately characterizes a relationship between the two passages?

(A) Passage A and passage B use different evidence to draw divergent conclusions.
(B) Passage A poses the question that passage B attempts to answer.
(C) Passage A proposes a hypothesis that passage B attempts to substantiate with new evidence.
(D) Passage A expresses a stronger commitment to its hypothesis than does passage B.
(E) Passage A and passage B use different evidence to support the same conclusion.

Stem: Relationship—we know they offer different explanations of evolution.

Elimination: (A) seems to represent the relationship well—leave it. (B) and (C) misrepresent the relationship. (D) represents an unsupported opinion, and (E) misrepresents the relationship.

Confirmation: (A) is the only attractive answer, and I know (A) is right.

Sample Solution Passage Three

The World Wide Web, a network of electronically produced and interconnected (or "linked") sites, called pages, that are accessible via personal computer, raises legal issues about the rights of owners of intellectual property, notably those who create documents for inclusion on Web pages. Some of these owners of intellectual property claim that unless copyright law is strengthened, intellectual property on the Web will not be protected from copyright infringement. Web users, however, claim that if their ability to access information on Web pages is reduced, the Web cannot live up to its potential as an open, interactive medium of communication.

This is most likely the main issue—should web pages get more copyright protection or not? Owners of intellectual property on one side, users on other.

The debate arises from the Web's ability to link one document to another. Links between sites are analogous to the inclusion in a printed text of references to other works, but with one difference: the cited document is instantly retrievable by a user who activates the link. This immediate accessibility creates a problem, since current copyright laws give owners of intellectual property the right to sue a distributor of unauthorized copies of their material even if that distributor did not personally make the copies. If person A, the author of a document, puts the document on a Web page, and person B, the creator of another Web page, creates a link to A's document, is B committing copyright infringement?

More specifics about issue—is linking illegal?

To answer this question, it must first be determined who controls distribution of a document on the Web. When A places a document on a Web page, this is comparable to recording an outgoing message on one's telephone answering machine for others to hear. When B creates a link to A's document, this is akin to B's giving out A's telephone number, thereby allowing third parties to hear the outgoing message for themselves. Anyone who calls can listen to the message; that is its purpose. While B's link may indeed facilitate access to A's document, the crucial point is that A, simply by placing that document on the Web, is thereby offering it for distribution. Therefore, even if B leads others to the document, it is A who actually controls access to it. Hence creating a link to a document is not the same as making or distributing a copy of that document. Moreover, techniques are already available by which A can restrict access to a document. For example, A may require a password to gain entry to A's Web page, just as a telephone owner can request an unlisted number and disclose it only to selected parties. Such a solution would compromise the openness of the Web somewhat, but not as much as the threat of copyright infringement litigation. Changing copyright law to benefit owners of intellectual property is thus ill-advised because it would impede the development of the Web as a public forum dedicated to the free exchange of ideas.

Author's opinion (given indirectly)—person chooses to put document up for free use on internet, and that person can restrict access, so person who links is not responsible.

Author clearly against strengthening copyright laws as they relate to web.

June 2007 Exam, Passage 3

Sample Solution Passage Three

15. Which one of the following most accurately expresses the main point of the passage?

(A) Since distribution of a document placed on a Web page is controlled by the author of that page rather than by the person who creates a link to the page, creating such a link should not be considered copyright infringement.
(B) Changes in copyright law in response to the development of Web pages and links are ill-advised unless such changes amplify rather than restrict the free exchange of ideas necessary in a democracy.
(C) People who are concerned about the access others may have to the Web documents they create can easily prevent such access without inhibiting the rights of others to exchange ideas freely.
(D) Problems concerning intellectual property rights created by new forms of electronic media are not insuperably difficult to resolve if one applies basic commonsense principles to these problems.
(E) Maintaining a free exchange of ideas on the Web offers benefits that far outweigh those that might be gained by a small number of individuals if a radical alteration of copyright laws aimed at restricting the Web's growth were allowed.

Stem: Central issue is whether copyright laws should be strengthened, and author thinks no.

Elimination: (A) is pretty good, but a bit narrow—leave it. (B) goes too far beyond text (changes amplify / necessary to democracy). (C) is much too narrow to be main point. (D) is not the author's main point at all. (E) is somewhat attractive, though I don't like "radical."

Confirmation: I don't love any answer, and am down to (A) and (E). (A) places a strong emphasis on person who created versus person who links—is that justified? I guess so—both the second and third paragraphs relate to that. Okay, (A) looks pretty good. What about "radical" in (E)? Looking back at the text, nothing matches up to that. And now that I look at it again closely, (E) is about restricting web growth— yikes—that's not what the laws are directly meant to do. (E) is definitely wrong, and (A) is correct.

16. Which one of the following is closest in meaning to the term "strengthened" as that term is used in line 8 *(middle of first paragraph)* of the passage?

(A) made more restrictive
(B) made uniform worldwide
(C) made to impose harsher penalties
(D) dutifully enforced
(E) more fully recognized as legitimate

Stem: I know that "strengthened" has to do with making it harder to gain access to the online files.

Elimination: (A) seems pretty good. (B) does not. Could (C) or (D) be right? Don't think so—checking quickly—neither of those things is discussed or hinted at. (E) is not relevant.

Confirmation: (C) and (D) were somewhat tempting, but (A) was what I expected, and it's correct.

17. With which one of the following claims about documents placed on Web pages would the author be most likely to agree?

(A) Such documents cannot receive adequate protection unless current copyright laws are strengthened.
(B) Such documents cannot be protected from unauthorized distribution without significantly diminishing the potential of the Web to be a widely used form of communication.
(C) The nearly instantaneous access afforded by the Web makes it impossible in practice to limit access to such documents.
(D) Such documents can be protected from copyright infringement with the least damage to the public interest only by altering existing legal codes.
(E) Such documents cannot fully contribute to the Web's free exchange of ideas unless their authors allow them to be freely accessed by those who wish to do so.

Stem: Need something that pretty closely matches what author expressed. Could be a lot of things. Time to eliminate.

Elimination: (A) doesn't match author's points. (B) seems a little strong, but it's decent—keep it. (C) isn't true according to what the author says. (D) disagrees with author's points. (E) seems a bit strong, but does seem related to some of the negatives of limiting access in last paragraph. Leave it.

Confirmation: Both (B) and (E) relate to the last portion of the passage, so I go back and read it again and read both answers again. (B) now seems wrong—"cannot be protected" goes against fact that author says some things can be done, and, even worse, there is not nearly enough support for "significantly" diminishing. (E) seemed too strong at first, but the passage gives tells us limitations would "compromise the openness of the Web somewhat," so, we can infer they would be able to *fully* contribute. Sneaky inference, but (E) is correct.

Sample Solution Passage Three

18. Based on the passage, the relationship between strengthening current copyright laws and relying on passwords to restrict access to a Web document is most analogous to the relationship between

(A) allowing everyone use of a public facility and restricting its use to members of the community
(B) outlawing the use of a drug and outlawing its sale
(C) prohibiting a sport and relying on participants to employ proper safety gear
(D) passing a new law and enforcing that law
(E) allowing unrestricted entry to a building and restricting entry to those who have been issued a badge

Stem: Strengthening current copyright laws is a blanket solution that would have a negative impact on web users, and instead he suggest more individual responsibility—passwords. Let's eliminate.

Elimination: (A) is somewhat tempting because of the restrictive element, but strengthening currently laws isn't like letting everyone use the facility—we can eliminate (A). (B) is about making one thing illegal verses another—not what we have here. (C) is attractive—prohibiting is like restricting web access, and relying on players to use proper gear is like people using passwords. I think (C) is right—leave it. (D) isn't a good match—passing and enforcing are two aspects of the same law. (E) is a great analogy for using passwords, but allowing unrestricted entry doesn't match strengthening copyright laws.

Confirmation: (C) was the only attractive answer, and we double-check it again, and there is nothing extreme or egregious about it. (C) is correct.

19. The passage most strongly implies which one of the following?

(A) There are no creators of links to Web pages who are also owners of intellectual property on Web pages.
(B) The person who controls access to a Web page document should be considered the distributor of that document.
(C) Rights of privacy should not be extended to owners of intellectual property placed on the Web.
(D) Those who create links to Web pages have primary control over who reads the documents on those pages.
(E) A document on a Web page must be converted to a physical document via printing before copyright infringement takes place.

Stem: Looking for something that matches text pretty closely.

Elimination: Nothing in the passage implies (A). I think (B) matches the text—leave it. (C) isn't right—they can control it as they like (by restricting access and such). (D) doesn't match text and doesn't make sense—people who make links can't control what viewers do when they get on the internet. (E) doesn't match anything in text at all.

Confirmation: (B) was the only attractive answer. Can I confirm it? Yep—passage says person who puts it on web (who happens to be the same person who restricts access, etc.—i.e., controls it) is offering it for distribution. (B) is correct.

20. According to the passage, which one of the following features of outgoing messages left on telephone answering machines is most relevant to the debate concerning copyright infringement?

(A) Such messages are carried by an electronic medium of communication.
(B) Such messages are not legally protected against unauthorized distribution.
(C) Transmission of such messages is virtually instantaneous.
(D) People do not usually care whether or not others might record such messages.
(E) Such messages have purposely been made available to anyone who calls that telephone number.

Stem: A big characteristic of the outgoing message was that it was purposely made for others to hear, in same way lots of web pages are, but answer could be anything...

Elimination: Author doesn't care that hey are both electronic. (B) is somewhat tempting—keep it. (C) has nothing to do with author's points, nor does (D). (E) matches what I expected.

Confirmation: (E) is what I was hoping for, but (B) is also good—can I confirm (B)? No—not sure if websites have no legal protection, and not sure about that for phone messages either. (E) is correct—"anyone who calls can listen to the message; that is its purpose."

Sample Solution Passage Three

21. The author's discussion of telephone answering machines serves primarily to

(A) compare and contrast the legal problems created by two different sorts of electronic media
(B) provide an analogy to illustrate the positions taken by each of the two sides in the copyright debate
(C) show that the legal problems produced by new communication technology are not themselves new
(D) illustrate the basic principle the author believes should help determine the outcome of the copyright debate
(E) show that telephone use also raises concerns about copyright infringement

Stem: The author uses the telephone analogy to show that those who link to websites shouldn't be punished for copyright violation, and that those who put up websites can control the situation by limiting access, etc.

Elimination: (A) doesn't match text. (B) is a little tempting, but the analogy doesn't show other side of debate—cut. (C) is not the point of the analogy. (D) is, I think, correct—that's why he's using it. Leave. (E) doesn't match at all.

Confirmation: (D) is the only decently attractive answer. He uses the telephone analogy to show who should be responsible for information distributed on a website, so he uses it to illustrate a principle to help determine the outcome of that debate. (D) is correct.

22. According to the passage, present copyright laws

(A) allow completely unrestricted use of any document placed by its author on a Web page
(B) allow those who establish links to a document on a Web page to control its distribution to others
(C) prohibit anyone but the author of a document from making a profit from the document's distribution
(D) allow the author of a document to sue anyone who distributes the document without permission
(E) should be altered to allow more complete freedom in the exchange of ideas

Stem: Hmmm. I'm not sure what the author thinks specifically of present copyright laws—I just know he doesn't think they ought to become more restrictive.

Elimination: (A) is not true—the author talks about passwords, etc. (B) is not true—the author thinks the person who puts up the page controls distribution. (C) goes beyond the scope of the passage (and seems too extreme). I don't remember reading about (D) at all—cut it. (E) is tempting, but I don't think he says that—shoot.

Confirmation: Oh man, let's look at (E) again, and check it against text—yep, he never says they need to be altered to allow more freedom. It's one of the other answers I crossed out, but I have no idea which one—the question says "according to the passage," so the answer has to be in the text. Scan text for "current copyright laws"—ah, there's the specific information, right in the middle of the second paragraph! (D) is right.

Sample Solution Passage Four

In tracing the changing face of the Irish landscape, scholars have traditionally relied primarily on evidence from historical documents. However, such documentary sources provide a fragmentary record at best. Reliable accounts are very scarce for many parts of Ireland prior to the seventeenth century, and many of the relevant documents from the sixteenth and seventeenth centuries focus selectively on matters relating to military or commercial interests.

Likely just background—it's been difficult to trace changes in Irish landscape.

Studies of fossilized pollen grains preserved in peats and lake muds provide an additional means of investigating vegetative landscape change. Details of changes in vegetation resulting from both human activities and natural events are reflected in the kinds and quantities of minute pollen grains that become trapped in sediments. Analysis of samples can identify which kinds of plants produced the preserved pollen grains and when they were deposited, and in many cases the findings can serve to supplement or correct the documentary record.

Seems to be main subject—pollen grains can be used as clue to trace changes.

For example, analyses of samples from Long Lough in County Down have revealed significant patterns of cereal-grain pollen beginning by about 400 A.D. The substantial clay content of the soil in this part of Down makes cultivation by primitive tools difficult. Historians thought that such soils were not tilled to any significant extent until the introduction of the moldboard plough to Ireland in the seventh century A.D. Because cereal cultivation would have required tilling of the soil, the pollen evidence indicates that these soils must indeed have been successfully tilled before the introduction of the new plough.

Example of how pollen grains help correct understanding of history. Three paragraphs in, "pollen as clue" definitely seems to be main subject of passage.

Another example concerns flax cultivation in County Down, one of the great linen-producing areas of Ireland during the eighteenth century. Some aspects of linen production in Down are well documented, but the documentary record tells little about the cultivation of flax, the plant from which linen is made, in that area. The record of eighteenth-century linen production in Down, together with the knowledge that flax cultivation had been established in Ireland centuries before that time, led some historians to surmise that this plant was being cultivated in Down before the eighteenth century. But pollen analyses indicate that this is not the case; flax pollen was found only in deposits laid down since the eighteenth century.

Another example to illustrate same thing.

It must be stressed, though, that there are limits to the ability of the pollen record to reflect the vegetative history of the landscape. For example, pollen analyses cannot identify the species, but only the genus or family, of some plants. Among these is madder, a cultivated dye plant of historical importance in Ireland. Madder belongs to a plant family that also comprises various native weeds, including goosegrass. If madder pollen were present in a deposit it would be indistinguishable from that of uncultivated native species.

Modifies main point—though pollen is effective clue, it does have its limitations.

June 2007 exam, passage 4

Sample Solution Passage Four

23. Which one of the following most accurately expresses the main point of the passage?

(A) Analysis of fossilized pollen is a useful means of supplementing and in some cases correcting other sources of information regarding changes in the Irish landscape.
(B) Analyses of historical documents, together with pollen evidence, have led to the revision of some previously accepted hypotheses regarding changes in the Irish landscape.
(C) Analysis of fossilized pollen has proven to be a valuable tool in the identification of ancient plant species.
(D) Analysis of fossilized pollen has provided new evidence that the cultivation of such crops as cereal grains, flax, and madder had a significant impact on the landscape of Ireland.
(E) While pollen evidence can sometimes supplement other sources of historical information, its applicability is severely limited, since it cannot be used to identify plant species.

Stem: Pollen is a useful clue, but it has some limitations. Time to eliminate.

Elimination: (A) looks good—keep. (B) shifts the main point from pollen to historical documents + pollen—eliminate. The "identification of ancient plant species" part of (C) doesn't match the text, so we can eliminate it. (D) misrepresents the text a bit—the pollen evidence isn't about increasing sense of significance, but rather accuracy. (E) overemphasizes the point in the last paragraph, and plays down the points make everywhere else in the passage—it can be eliminated too.

Confirmation: (A) is the only remaining choice, and it represents the text well. It doesn't discuss the mitigation mentioned in the last paragraph, but overall it does a nice job of expressing the main point of the passage.

24. The passage indicates that pollen analyses have provided evidence against which one of the following views?

(A) The moldboard plough was introduced into Ireland in the seventh century.
(B) In certain parts of County Down, cereal grains were not cultivated to any significant extent before the seventh century.
(C) In certain parts of Ireland, cereal grains have been cultivated continuously since the introduction of the moldboard plough.
(D) Cereal grain cultivation requires successful tilling of the soil.
(E) Cereal grain cultivation began in County Down around 400 A.D.

Stem: Both the third and fourth paragraphs give us examples of what the pollen record was used to disprove, so it's likely our answer will come from that area. It's a bit too much to read again—going to eliminate choices first.

Elimination: Pollen record doesn't help inform of when plough was introduced—can eliminate (A). (B) seems like the right answer—that entire third paragraph was about pollen for cereal grain appearing earlier than expected. Pollen didn't prove anything about equipment, so we can cut(C), and it doesn't tell us directly about tilling required—cut (D). (E) is a possibility. Not sure if I remember reading that.

Confirmation: Going back into text, definitely have proof that was the assumption, and that pollen record goes against that assumption, in paragraph 3. Looking again carefully, can find no information to confirm (E). (B) is correct.

25. The phrase "documentary record" (lines 20 and 37) *(very end of second paragraph and second sentence of fourth paragraph)* primarily refers to

(A) documented results of analyses of fossilized pollen
(B) the kinds and quantities of fossilized pollen grains preserved in peats and lake muds
(C) written and pictorial descriptions by current historians of the events and landscapes of past centuries
(D) government and commercial records, maps, and similar documents produced in the past that recorded conditions and events of that time
(E) articles, books, and other documents by current historians listing and analyzing all the available evidence regarding a particular historical period

Stem: Documentary record—record from documents from past that give clues about history of landscape. Time to eliminate.

Elimination: Documents not about pollen—eliminate (A) and (B). (C) is about "current" historians—not right. (D) seems good. (E) is also about "current" historians.

Confirmation: Does document record have to be old records? Seems like it—paragraph one introduces document record in terms of old documents. (D) is correct.

Sample Solution Passage Four

26. The passage indicates that prior to the use of pollen analysis in the study of the history of the Irish landscape, at least some historians believed which one of the following?

(A) The Irish landscape had experienced significant flooding during the seventeenth century.
(B) Cereal grain was not cultivated anywhere in Ireland until at least the seventh century.
(C) The history of the Irish landscape during the sixteenth and seventeenth centuries was well documented.
(D) Madder was not used as a dye plant in Ireland until after the eighteenth century.
(E) The beginning of flax cultivation in County Down may well have occurred before the eighteenth century.

Stem: Previously-held assumptions mentioned in paragraphs 3 & 4—cereal before plough, and flax before 18th century. Answer likely related to one of those.

Elimination: (A) isn't discussed. (B) is definitely correct—I think. (C) is not specifically discussed, nor is (D), and (E) is what was mentioned and contradicted by pollen evidence, I think—(E) seems good too.

Confirmation: Looking again at (B)—it's about "anywhere" in Ireland—do I have evidence of that? No I don't. (B) is not right. Looking in fourth paragraph, I have direct proof for (E): some historians to surmise that this plant was being cultivated in Down before the eighteenth century. (E) is correct.

27. Which one of the following most accurately describes the relationship between the second paragraph and the final paragraph?

(A) The second paragraph proposes a hypothesis for which the final paragraph offers a supporting example.
(B) The final paragraph describes a problem that must be solved before the method advocated in the second paragraph can be considered viable.
(C) The final paragraph qualifies the claim made in the second paragraph.
(D) The second paragraph describes a view against which the author intends to argue, and the final paragraph states the author's argument against that view.
(E) The final paragraph offers procedures to supplement the method described in the second paragraph.

Stem: Thinking back—the second paragraph introduced the main point—pollen is useful clue, and the last paragraph modified the point just a tad—pollen evidence has limitations.

Elimination: (A) doesn't accurately state that relationship. Nor does (B)—it's not a problem that needs to be solved before pollen evidence is useful. (C) accurately reflects the relationship—qualifies is exactly what the last paragraph does—leave (C). (D) grossly misrepresents the structure of the text—eliminate. (E) is not true—the final paragraph doesn't offer procedures at all.

Confirmation: (C) is what we expected and (C) is correct. The claim is that pollen is useful for understanding history, and the final paragraph qualifies this statement by saying pollen record has its limits.

The Road Ahead

How do you feel about your performance on the practice section? At this point, it's not necessary to feel like you are an absolute Reading Comprehension master. In particular, it's very likely that your processes are not as intuitive or automatic as you'd like. That's to be expected and of course that's fine. However, it is also expected that by this point you feel like you have a comfortable understanding of the design of LSAT Reading Comprehension, and that you feel that you have strategies for handling any and all situations—you have the tools, you can see the finish line, and you know exactly what you need to do in order to have a great Reading Comprehension section. At this point, it's just a matter of getting better—faster, more accurate, and more confident. Hopefully you feel that this final set of practice tests is the last bit of preparation you need to ensure that you go into the exam in top form.

In the next lesson, we will do a final review of Logic Games and discuss Logic Games timing strategies. In the final lesson, we'll do the same for Logical Reasoning. If you are following one of the recommended study schedules, the final leg of your preparation will mostly consist of full practice exams and individual review sessions. Below is a list of tools that you may find helpful for this last stage.

auxiliary study tools

here are some additional tools you may find useful in the final stage of your preparation.

LSAT TRAINER TOOLS

Notes: If you've been keeping tidy notes on your progress, now is the time they will really pay off. Use your notes to review what you have learned, and to corral all issues to study again.

Appendix: The appendix has lists of drills, questions used in the book, and questions in the *10 Actuals* broken down by type. You can use the appendix to consider which drills to return to and redo, and which questions to review again.

Infographics and Articles on theLSATtrainer.com: The infographics, in particular, work nicely as summaries of some of the key things to know about the LSAT.

NON-LSAT TRAINER TOOLS

Additional Questions and Practice Tests: If you feel you need additional practice, you can purchase additional exams from LSAC (through Amazon), and you can also purchase additional exams and question packets from third-party vendors such as Cambridge LSAT.

Problem Solutions: There are several sites online that provide free solutions, and these are valuable resources for checking the work you do on practice exams. The **Manhattan LSAT** site has a free forum which includes solutions, written by instructors, for almost all official guide questions. If a solution is not available, or if a solution isn't satisfactory, you can post on the forum yourself and solicit further dialog. Additionally, the website for **The LSAT Blog** offers quality video solutions for Logic Games for free. Finally, you can always go on **top-law-schools.com** to talk with other high-scoring students and get any peer help that you need (just remember that you can't actually post official questions online—you can reference them by practice test if need be just as we have in this book).

39 LOGIC GAMES review timing strategies and final thoughts

How do you feel about your Logic Games abilities right now? How do your abilities compare with a month ago, or two months ago, or when you first started studying? Do you feel that you are at the top of the mountain, or do you feel you still have a ways to go?

At this point, you should be feeling confident about your skill set, but it's understandable if you don't feel you've had quite enough practice to solidify your habits. If you are at a point where you feel your final practice exams are enough to make sure your skill set is solid, and that your habits are firm, then you are in great shape.

If you don't feel that you are quite there yet, it may be worth it for you to take a bit of time to reassess and review what you've learned. If you've considered getting extra help from a tutor or a friend, this would be a good time to use that ace card. Ideally, you want to be able to use your last set of practice tests in the manner described in the previous paragraph, but it's fine if you don't feel that you are there yet—just hit the pause button and do a bit more work.

What do you fear about the Logic Games section?

How do you know if you are there yet or not?! Not to be cheesy, but it's in your gut. Here's the key question I want you to consider: What do you fear about the section? Do you fear that you'll see something that you aren't prepared for? Do you hope that any one particular type of game or rule or question doesn't appear on the exam? If you have these fears, they could be signs of holes in your understanding, strategies, or experience—signs of problems with your skill set. It's fine to have these fears, but be honest about them and use them to figure out what you need to work on in order to get to the top of the mountain.

Here is a checklist of the key issues we've discussed in the book. If you are having problems, you may want to use this to mark which lessons you want to review. If you feel confident that you are ready for the next step in the process, you can use this list to double-check that you feel strong about every key aspect of the Logic Games section.

The ability to diagram is the key to Logic Games success (10).

All games assign elements to positions. About two-thirds of all games involve ordering, and about half of all games involve grouping. Assignment, ordering, and grouping are the three basic design elements of LSAT Logic Games (10).

Games can further be complicated by subsets. Subsets can appear in the elements or the positions. We can be told the subset assignments, or not (11).

Numbers issues can appear when there is something other than a one-to-one relationship between elements and positions, or when there are subsets (12).

Non-one-to-one relationships involve more elements than positions, or more positions than elements(12).

Certain rules are conditional, meaning that they are only relevant to particular situations (13).

Every conditional rule yields at least one inference: the contrapositive (13).

When games have multiple conditional rules, typically your primary task will be to see how these rules link together (13).

Biconditionals can be thought of as *or* rules in disguise (14).

Complex *or* rules can be very difficult to understand, but they can also be extremely useful for organizing your diagram or for setting up multiple diagrams (14).

Sometimes setting up two (or more) diagrams can help you understand the scenario and notate rules more clearly (14).

An effective Logic Games process includes seeing the big picture, understanding and notating rules correctly, bringing rules together correctly, and using effective question strategies (15).

Nearly every game begins with a Rules question. The fastest way to get Rules questions correct is to use the written rules to eliminate incorrect answers (21).

For most questions, there are two issues to consider in the stem: "Is there new information to incorporate?" and "How will the answer choices split up?" (26).

When given new information in the question stem, we will always be able to infer additional facts from that information, and these inferences will differentiate the right answer from the wrong ones (26).

In evaluating answers, we want to rely on what we know must be. So, we want to search for right answers when asked what must be true or must be false, and we want to eliminate wrong answers when asked what could be true or what could be false (26).

A less common family of questions, options questions, require us to think of could be's, the variety of possibilities that a game presents. These questions require a subtle but significant change in mindset (27).

An even less common type of question, the Rule Change question, will require us to consider the significance of replacing one rule in the game with another in the answer choices. These questions require clear understanding and specific strategy (27).

You don't have to be perfect to have great success on the Logic Games section. You do have to be very good, and you have to avoid making mistakes (28).

Timing Strategies

I talked briefly about Logic Games timing back in Lesson 21: the typical Logic Games section has twenty-three questions, and this works out neatly for you to average 3 minutes per game setup, and 1 minute per question.

We also discussed that it's virtually impossible (and unnecessary) to stick to a consistent setup timing and problem-solving timing strategy game after game. Whereas most Reading Comprehension passages take about the same amount of time to read, different types of Logic Games take significantly different amounts of time to properly set up. Furthermore, certain games are designed to have question sets that require a lot more work, and thus require more time, and others less so. All that is to say that different games can take drastically different amounts of time.

There are two general tendencies that can be helpful to keep in mind. The first is that, typically speaking, games that take longer to set up often have questions that require less time to solve, and games that are full of questions that require a lot of your time typically have setups that don't. Sometimes you will run into a game with a very short setup and questions that fly by (yay!); and sometimes you will run into games that require, even when you play them well, a significant amount of time to set up and a significant amount of time to get through questions (boo). However, most of the time this won't be the case.

It makes sense why long setups often equate to quick questions, and vice-versa. Games that require a lot of setup often involve a great many inferences, and by making these inferences up front, you end up "solving" much of the game. The questions then become more of a test of what you've already figured out. For other games, the scenario and rules take very little time to set up because there aren't many inferences—a great amount of uncertainty is left lingering in the air. That often means that questions will take longer—you'll have to make the inferences and "solve" the games as you solve each individual problem.

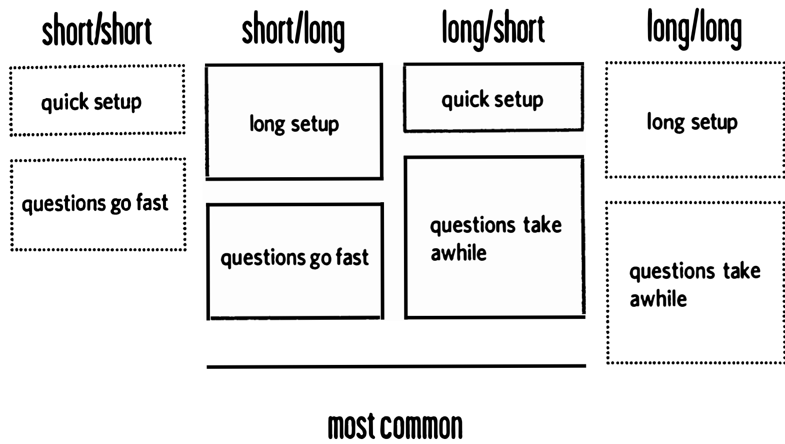
The other general tendency to keep in mind is that even though individual games can vary greatly, entire game sections cannot—in fact, the difficulty of entire games sections is extremely consistent administration to administration. If your first two games are easier than normal, your next two will be harder. If your first three games are killer, your fourth will be easier than normal. Games sections even out, and you want to make sure you use this understanding to stay calm and keep to your timing strategies.

Timing Instincts

Keeping in mind the topsy-turvy nature of the section, it makes little sense to try to keep to a rigid timing strategy. You will want to have some benchmarks, and you'll want to keep track of time (to be discussed shortly), but since different games and questions are meant to take different amounts of time, it's imperative that you work to develop correct instincts about whether or not you are using time well. As with Reading Comprehension, it's really an issue of whether or not you are using your time efficiently. Are you taking more time because the situation requires it, or because you are wasting time? Let's talk about effective versus ineffective uses of time during the setup, and during the questions.

Tendencies and Twists

Typically, games that require lots of setup have questions that go quickly, and vice-versa. However, the section is very inconsistent, and there are certain games that are just naturally meant to take much less time (short setup and short questions) and others that are meant to take more time (long setup and questions that require a lot of work and time). A big key to success is being able to tell the difference between a game that warrants extra time and a game that you that are having problems with.



Using Setup Time Efficiently

Put simply, you use setup time efficiently when you are actively working toward one of three specific goals: seeing the big picture, understanding and correctly notating rules, or making absolute inferences. If you need to spend time on any of these three goals, it'll generally be time well spent.

By this point, seeing the big picture for most games should be fairly automatic. However, as I'm sure you are well aware, the LSAT is definitely capable of throwing some curveballs that force you to stop and think.[1] If a game requires an unusual setup, don't panic—understand that the setup likely feels unusual for everyone taking the exam, and give yourself the time you need to lay out a game correctly and wisely.

1. How might you handle the following types of scenarios?

"Eight children sit at a round table. J sits to the right of M, F and L cannot sit directly opposite one another..."

"Stores line the north and south sides of a boardwalk. The stores either have canopies or they don't, and they either open on the weekends or they don't. Three of the stores on the north side of the street have canopies. No two adjacent stores on the south side open on the weekends..."

"Four people—F, G, H, and J—start the morning on island A, and two people, S and T, start the morning on island B. By the end of the day, two of the people are on island A, and four are on island B. Either F or H went to island B, but not both. If J went to island B, S went to island A..."

By this point, notating most rules should be fairly automatic as well. However, time and time again, we've seen both the danger of making small notational errors, and the benefit of making wise notational decisions (such as picking which rule to diagram first, or which rules to diagram together). And some rules are just tough—they require time to understand correctly and notate correctly.

Time spent carefully understanding rules and notating them is always time well spent. Unless you are doing something that is unnecessarily complicated, this part of the process will never end up taking up much of your thirty-five total minutes. A strong, usable understanding of the rules is always rewarded, and a shaky understanding of the rules is always exposed. Make sure your notations are easy to understand—write out notes next to them if need be.

Finally, time spent making significant and absolute inferences is always time well spent. In general, you want to think about inferences before you notate rules, as you notate rules, and after you notate rules. There are certain inferences game makers expect you to make, and in these cases, games can be very difficult if you don't make these inferences.

There are other inferences (such as those that allow us to create two diagrams instead of one for a game) that aren't necessarily expected or required, but are instead clever, and when discovered, can break open a game and make it much easier to answer questions. Spending time making and exploring these inferences is also time well spent.

However, unlike with picturing the game or notating rules, with inferences there is no clear stopping point, and it's easy to spend too much time looking for them. It's also easy to make mistakes over-inferring. It requires some practice to get good at knowing when to stop making inferences and move on to the questions. As long as you have a strong sense that there are more to be found, keep looking. If you find yourself spinning your wheels for more than a few seconds, move on.

Using Setup Time Inefficiently

As I just mentioned, you can use setup time inefficiently looking for inferences that aren't there, or that are just too confusing (say, you figure out that one element can only go in one of three spots if another one goes in one of three spots) to notate. Remember that you can keep finding out more about a game as you solve questions, and, even if you miss an inference up front, you may be able to pick it up as you solve the first few questions. It helps to set some limits for yourself ("I'll jump into questions if I can't find another inference in the next ten seconds" is a good one) and practice keeping to them, so that you keep your inference time in check.

Traditionally speaking, test takers have often wasted a lot of time up front setting up hypotheticals. There are certain companies that endorse these strategies, and I'm sure some students have had some success with them. However, creating a bunch of hypotheticals up front is a strategy that matches up very poorly with the rest of the strategies in this book, and in my experience, it's a crude and unnecessarily complicated way of thinking about games.

Spend time up front figuring out what *must* be, and if what must be is limited to a couple of interesting scenarios (imagine that an order of elements must either be built around X - Y - Z or Z - Y - X), you may want to explore those multiple scenarios. However, don't spend a lot of time thinking about what *could* be—mapping out where every element *could* go, what elements *could* be grouped together, and so on—don't waste time exploring unnecessary hypotheticals. This type of thinking will lead to errors, and limit your ability to use your diagram to differentiate between what must be and what could be.

Finally, the last way to waste time during the setup is to rush through it. Rushing though the setup will invariably lead to you having to spend more time in the questions. At the least, for every game, you should have a very clear understanding of the scenario and every rule, and hopefully you'll also have the insight of a few inferences. Make sure you give yourself enough time to go into the questions prepared.

Using Problem-Solving Time Efficiently

We use time efficiently during questions when we are heading directly toward an answer. We use time efficiently when we make inferences off of the question stem, and when we either search for the right answer or eliminate wrong ones based on the situation the question stem presents.

In general, time spent in the question stem is time well spent. Whenever a question stem leads to a chain of inferences, follow it through. If the information in a question stem limits a situation to just two options, write them out. Make sure you spend the time to understand the stem, make full use of it, and to prepare yourself for how to think about the answer choices.

Finally, time spent confirming a right answer is generally time well spent. If you've eliminated four choices but feel somewhat suspicious about the answer that remains, do play it out just to make sure. Chances are the confirmation process will just take a few seconds.

Using Problem-Solving Time Inefficiently

Keep in mind that extra time spent in the questions is commonly the result of a bad set-up. If you think your question-specific strategies are fine but you keep having to spend too much time on the questions, chances are you aren't setting up the games efficiently or you aren't as comfortable with your notations as you should be.

However, even when we do understand games well, and even when we do use effective notations, we can often end up spending too much time on questions simply because of the way we solve them. Furthermore, this time suck often happens "silently" without us even knowing about it or being aware of it—when we use inefficient systems, even when we get questions right, we end up spending a bit more time than we needed to, and over the course of a section, those differences add up.

The most inefficient use of time during the Games section is the time spent having to create hypotheticals to evaluate answer choices. Certain questions require this of us, and we are all forced to make such hypotheticals when questions don't go the way we want, but you shouldn't have to make such hypotehticals often (I would say on average it should happen to a top test taker less than three or four times per section).

If you find yourself commonly having to make hypotheticals to evaluate answers, it's a sign that you are not diagramming well, not inferring correctly off the question stem, or not approaching the answers correctly. Carefully evaluate your mistakes on those terms.

For many students, hypotheticals go hand in hand with not fully utilizing the question stem. They have to go to hypotheticals to test answers when they don't make all of the inferences they should, or when they go searching for a right answer when they should be eliminating wrong ones and vice-versa.

In particular, looking to eliminate wrong answers when the person should be looking for the right answer is a very common time-sucker. It can take a lot of time to prove that four wrong answers could be true, or could be false. If you are playing a game well, it's typically much faster to see which answer must be false, or must be true. Don't waste time eliminating wrong answers if you don't need to.

Top performers...

- Understand scenarios easily and use notations well
- Use effective approaches to questions
- Know when to try something new, and when to move on
- Only needs to use hypotheticals occasionally

Those who struggle with games...

- Can't picture the scenarios and can't trust their notations
- Solve questions inefficiently, often using lots of hypotheticals
- Are afraid to restart or give up on questions and waste time spinning their wheels.

Tracking Your Time During a Test

Okay, having discussed all of the challenges of using time well in Logic Games, and having discussed efficient and inefficient uses of time, let's lay out a basic strategy for thinking about and keeping track of your time during an exam.

Note that the strategies I suggest are extremely simple, and that's out of necessity. You don't want to waste precious time or energy trying to utilize some complex timing strategy during the exam. Here's what I suggest:

One: Memorize Some Basic Benchmarks

35 minutes / 4 games = 8:45 per game. On average, games get slightly more difficult as the section goes on. So, try to keep the following markers in mind as you go through a section.

Goal after first game: under 7 minute mark
Goal after second game: under 16 minute mark
Goal after third game: under 25 minute mark

You can play around with the numbers if you'd like to fit your own needs and preferences, but for most people the above will serve as an effective general benchmark. Don't keep these numbers in your head and try to remember them as you are working through a section. Instead, write them down in the front of your booklet before the timer starts. This will give you peace of mind and help free you up to focus on the games themselves.

Two: Evaluate Your Experience Relative to Those Benchmarks

Remember that games vary greatly in terms of how long they take, and also remember that sections, as a whole, even out.

As you finish playing games, trust your instincts about whether those games felt harder than usual or easier than usual, and use these instincts to get a deeper understanding of where you are relative to your benchmarks.

For example, imagine that you've just finished playing the first two games, and they were brutal. In particular, the second game was one of the hardest you've seen, and you barely clawed and fought your way through it. You check your watch after that second game and find that you are 18 minutes into the section.

Should you panic? Should you try to rush through the next game? No. Chances are, if your instincts are right (and after all this work they certainly should be!) the third and fourth games should be a bit easier than normal, and you should still be able to finish on time.

On the other hand, imagine you run into a very easy first game, and you take the time to make sure your form is picture-perfect. You know you got every question right, and afterwards you check your watch and you are at the nine minute mark.

This is a much more significant cause for alarm. A very easy first game is likely a sign that there are going to be some significant challenges ahead. If it truly was an easy game, you should have tried to speed through it in less than seven minutes. In this situation, you want to use this as a sign that your pace is too slow, and you want to be very conscious of trying to go faster on the next game.

Three: Check Your Timing after Your First Setup, and after Each Complete Game

As I just mentioned, a somewhat common timing concern has to do with pace; it's easy to get started at the wrong pace, especially if we are trying to be too careful, and this can come back to haunt us later in the section.

For this reason, it's best to check your pace early in the section; I recommend you first check your time after you set up your first game. You should be able to gauge whether the timing is right relative to the difficulty of the scenario and rules, and then either keep your pace, slow it down, or speed it up.

what if you just can't finish in thirty-five minutes?

Okay, so you've pretty much done all of the prep that you are going to do for the LSAT, you are just a few weeks out, and you are still having significant timing issues with the Logic Games section. You're not alone. How do you best handle the situation to maximize your score?

As I've mentioned before, I do not recommend skipping entire games. This puts too much pressure on you to perform well on the games that you solve, and you miss the chance to potentially pick up a few easy points. My recommendation is not based on some theoretical or philosophical belief—it's born out of personal experience. I've worked with many students who did not perform as well as they could in large part because of this strategy, and I've yet to meet the student who performed better than he or she would have otherwise by skipping a game.

If you must skip, skip questions. If, twenty seconds into a question, you have no clear sense of what the right answer might be, and you have no clear sense of how to go about answering the question (you often get this sinking feeling after your first go around with the answers, when you either can't eliminate as many answers as you'd hoped, or can't find the one answer that you thought you might find), take a good guess and move on. If you can take these four or five questions that you likely would have missed, save yourself the ten or so minutes that you would have likely spent on these questions, and instead use thirty seconds per question to solve them, you can drastically cut your overall timing without sacrificing full games. Work to recognize when questions are challenging for you, and practice cutting bait and taking educated guesses on a certain number of the hardest questions per section.

After that, as long as games are going fine and you don't run into any unusual trouble, you should be fine checking your time after every complete game. It's not necessary to time every setup or every question during the real exam, and trying to do so will only be a distraction.

If a game is going particularly badly, of course you'll want to check your time throughout it to make sure your timing doesn't get out of hand. Don't let one game ruin your entire section. Try to answer the questions that you can (per the article on the previous page), and don't waste time on the ones you can't.

How to Improve Timing

Most of you have at least five more prep tests and many more weeks of studying before the exam; you want to make sure you utilize this period to improve on your timing. Here are some general thoughts on what you want to focus on:

One: Getting More Comfortable with Your Diagram

As we've discussed from the beginning, your ability to diagram is the key to Logic Games success, and of course, your ability to diagram has a huge impact on timing. It not only impacts the amount of time you spend up front, but more importantly, it impacts the time you spend in the questions. If you don't set up games as efficiently as you can, and if your notations are not intuitive for you, you'll have to do a lot more work, and a lot harder work, when it comes to answering questions. If you are able to represent games easily, and if you readily understand what your notations mean, the work you need to do for answering questions becomes markedly easier and goes much faster. If you have any weaknesses in your diagramming ability, make sure to focus on this in your prep and your review.

Two: Approaching Questions More Efficiently

Most test takers waste a ton of their valuable time thinking about things they do not have to think about. Each question type presents an optimal path to the correct answer, and if you are able to follow this path, questions will go much faster.

Three: Knowing When to Let Go

Especially if you are having trouble finishing the section in thirty-five minutes, this is the issue that you really want to focus on. Think about the time you have in a section as a limited amount that you have to invest, with the goal of getting as many right answers as possible. Where do you want to invest that time? You want to invest it in the questions you are most likely to get right. After all, harder questions aren't worth any more. However, many test takers get in a lot of trouble, and score worse than they should, because they focus all their energy and time in the hardest questions. In general, making tough timing decisions has to do with being able to let go of questions. You want to work on getting better and better at letting go during your practice, so that by test day, it's far less of a stress.

Your Next Steps

If you are following one of the recommended study schedules, your final Logic Games preparation will center on the sections that you do as part of your final 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 Practice Exam, Remind Yourself of Key Considerations

Again, a three by five note card with maybe two to five points on it is all you need. Remind yourself of the things you need to focus on in the section: personal reminders, such as going slower during the setup, or timing strategies.

For Logic Games, I challenge you to set specific goals for improvement with each game section you try. More on this in just a bit.

Two: During Each Practice Exam, Keep Track of Certain Markers

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 setup takes
(B) the amount of time each set of questions takes
(C) the questions for which you were not certain of your answer
(D) (optional) the questions for which you felt you spent a lot of time

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

As with Reading Comprehension, if you'd like to track the 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. Your main focus should be on taking the section just as (or 99% the same) you would during the real exam.

Three: Review Your Work Carefully

This step is critically important, especially for studying Logic Games. You are going to use these final games that you play to triple-check your skill set and to make sure it's rock solid. And you'll use these final games to evaluate and confirm habits.

If you can bear one more sports analogy—reviewing your games sections is akin to athletes reviewing game tape. Many of the top winners have reputations for spending a lot of time in the video room for a reason.

After every section, walk through each game carefully. Think about the optimal way that you could have set up the game and compare that with how you really set it up. Think about the perfect way to diagram each rule and compare this to how you actually did it. Take time to carefully dig out every inference and compare these inferences with what you got initially.

While the section is still fresh in your mind, review each question whether you got it right or not. Look at the work you did, think about the processes you used, and try to look for as many areas for improvement as you can. Additionally, for games that caused you trouble, use your "perfect" diagram, and take as much time as you need to walk through a "perfect" process for each problem.

For games that make you nervous about your abilities, take the following two steps:

(1) Play the game again the next day. And the next one. Keep re-playing it until the game seems easy.

(2) Think about the defining characteristics of the game (subsets? conditionals?), review the relevant lessons, replay similar games you've played before (you can use the appendix for reference), and, finally play other games from past exams that have similar characteristics (more on this below).

Set specific goals for each practice exam—push yourself to keep getting faster and more accurate with each experience. You'll find certain game sections harder than others, and your performance will likely go up and down, but you should expect to continue to see overall improvement.

Final Thoughts

I believe that 10 to 16 exams is more than enough practice for you to experience everything that you need to experience for Logical Reasoning and Reading Comprehension. Because so many different things can happen in a Logic Game, and because there are only four Logic Games per exam, some of you may benefit from getting some additional Logic Games to practice with. You can purchase games on Amazon by buying books and exams put out by LSAC or private companies such as Cambridge LSAT.

If you still feel shaky about your skill set, focus on drill sets—that is, concentrate on games that have subset issues, or conditional rules, or whatever else it is that causes you trouble (again, you can use the appendix for reference). If you feel good about your skills but just can't seem to bring them together well, work on full games sections.

At this moment, take a second to think about where you are in terms of Logic Games, and give yourself an honest grade. See how your situation relates to the three listed below:

1. Skills: D, Habits: D: If you feel really shaky with your skills and habits, reread the games lessons in this book and take notes. Don't underline, highlight, or copy and paste—write down notes using your own hands and a pen or pencil and paper. Consider tutoring if you can afford it, or consider other ways to get outside help (such as forums) if you can't. Do a ton of drill work in specific types of games, and don't worry about full sections until you feel more confident about your skills.

2. Skills: B, Habits: D: Expect that practice will naturally bring both grades up, but keep on top of your progress. Pay particular attention to what challenging games expose in your skill set, and focus on your methodology—how you solved games and problems—during your review. Set goals for improvement with each game, and focus more on drill sets than sections.

3. Skills: A, Habits: B: If you are here, you are in really great shape. My guess is that you are missing questions once every few games, and sometimes you are able to comfortably finish in thirty-five minutes, while other times it's a struggle.

Trust that this final practice will get you where you need to be. It's just a matter of muscle memory at this point, and you're naturally going to get a little faster and more accurate with a bit more practice. If you want additional practice beyond your assigned practice exams, you should focus on taking full games sections. Focus on the games and questions that lie at the extremes in terms of timing—those that should take very little time and those that are designed to take a lot of time, and review these games and questions more carefully.

I think games are fun. I know I'm a nerd, but I also know I'm not the only one who feels this way. If you agree that they are fun, buy yourself a bunch of games, and play them as a hobby between now and the exam. The more practice you can get, the better. If you are not a nerd like me, hopefully this book has at least made the games far more understandable and manageable. Make sure that you have practiced enough so that you can rely on your habits and instincts on test day.

40 LOGICAL REASONING review timing strategies, and *final* final thoughts

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-run down of the key Logical Reasoning issues that 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 (5).

Reasoning flaws exist between the support and the conclusion (5).

Mindset impacts what we think about, and we want to read all arguments with a critical mindset (5).

You can describe any flaw using the phrases "The author fails to consider..." or "The author takes for granted..." (5).

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 (6).

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 (6).

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 (7).

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 (7).

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 & 7 (8).

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 (8).

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 (16).

The main point of an argument will be subjective, and it will have support (16).

Intermediate conclusions are supporting premises that are themselves subjective and have support (16).

For all Logical Reasoning questions, you want to look to eliminate wrong answers before you look to confirm the right one (16).

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 (17).

Basic Assumption questions are Flaw questions, but with the flaws described as assumptions made by the author (17).

An assumption is an unstated and unjustified belief (17).

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 (17).

A sufficient assumption is one that fills all holes between support and conclusion and makes the conclusion 100% valid (18).

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 (18).

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 (18).

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 (19).

A great way to confirm whether an answer is necessary to the conclusion or not is the negation test (19).

Strengthen and Weaken questions are asking 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 (19).

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 (20).

Objective questions require you to understand the author's meaning and purpose, but they do not require critical evaluation of reasoning (30).

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 (30).

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 (32).

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 (32).

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 (32).

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 (33).

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...?" (33).

Logical Reasoning tests your ability to read and to reason, and it tests your mental discipline (34).

Your skills and habits will determine test day performance (34).

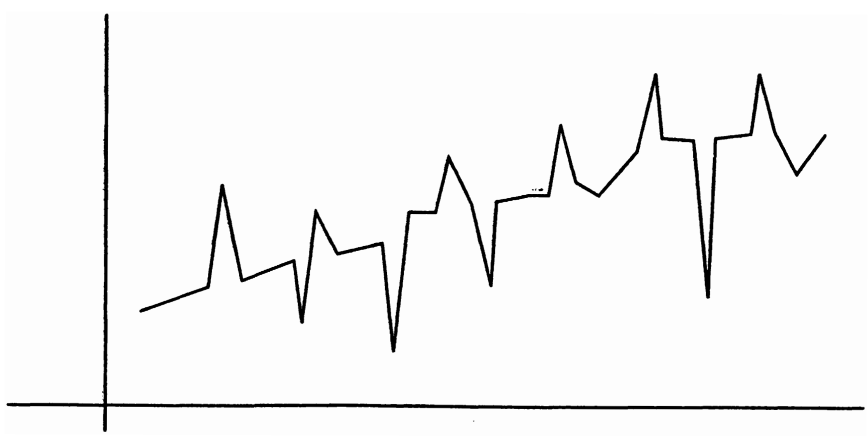
Timing Strategies

A typical Logical Reasoning section has twenty-five questions, and that works out to about 1:24 per question. However, just as with Logic Games, 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, :40, 1:50, 1:15, :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 evens 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 so 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 that 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 and Logic Games, 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 quesetion 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 is 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 a 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.

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

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 questions 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 590 and 591 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 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 lists in the appendix to make these drill sets, make them yourself, or purchase questions that are already separated out 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 of the extra things that 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 to 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 the sections that you do as part of your final practice exams. Just as with Reading Comprehension and Logic Games, 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 that 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 for 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
- 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 that 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 proven yourself most deserving of success.

Now it's time to go get it.

APPENDIX

LIST OF DRILLS

lesson	pages	name	subject
5	76 - 77	Flaw Drill	Logical Reasoning
5	83	Flaw Drill Matching Double Dip	Logical Reasoning
6	91 - 92	Piece Puzzle Flaw Drill	Logical Reasoning
6	95	Piece Puzzle Flaw Drill Double Dip	Logical Reasoning
7	104 - 105	Apples Oranges Flaw Drill	Logical Reasoning
8	116 - 117	1 + 1 3 Flaw Drill	Logical Reasoning
10	142 - 144	Basic Setups Drill	Logic Games
11	152 - 153	Subsets Simple Setups Drill	Logic Games
11	155-159	Subsets Setups Drill	Logic Games
12	165	Uncertain Groups Drills	Logic Games
12	167	Math Inferences Drill	Logic Games
12	169 - 171	Numbers Setups Drill	Logic Games
13	182	Conditional Rules Drill	Logic Games / Logical Reasoning
13	186-187	Conditional Setups Drill	Logic Games
14	198	Complex *Or* Rules Drill	Logic Games
14	200 - 203	*Or* Setups Drill	Logic Games
15	212-215	Full Setups Drill	Logic Games
16	226-227	What's the Conclusion? Drill	Logical Reasoning
16	231-232	What's the Support? Drill	Logical Reasoning
16	235-236	What's Wrong With the Argument? Drill	Logical Reasoning
18	259-260	Translating Conditional Statements Drill	Logical Reasoning / Logic Games
20	287 -288	One Argument & Ten Answers Drill	Logical Reasoning
22	325 - 326	Reasoning Structure Drill	Reading Comprehension
26	378 - 379	Must be True or False Drill	Logic Games
27	392	Possibilities Questions (Trainer-Made Game)	Logic Games
27	396	Rules Questions (Trainer-Made Game)	Logic Games
27	399	Minor Questions Game (Trainer-Made Game)	Logic Games
31	462 - 463	Extreme Links Drill	Logical Reasoning / Logic Games
33	489	Question Stem Quick Quiz	Logical Reasoning
36	522 - 527	Hypothetical Questions Drill	Reading Comprehension

Note that mini-drills and quizzes have not been listed.

LOGICAL REASONING QUESTIONS DISCUSSED

COLUMNS = LESSONS | ROWS = PRACTICE TESTS

	1	2	5	6	7	8	9	16	17	18	19	20	30	32	33
23						2.8 2.17									
24				3.5 2.5	2.21										
25					3.2										
26										3.21	2.7				
27							1.11								
28							1.21 3.20 1.19				1.2 3.19 1.5 1.15 1.23 3.25			1.10	
29							4.20 4.15 1.11 1.16		1.14 4.18 4.21 4.25	1.19 1.20	1.15		1.12	4.10	
30									2.6			†	4.2 2.14		2.10
31										2.10			3.14 2.23 3.18		2.21 3.19 2.11 2.13 3.2
32			1.12 3.18												
33															
34	2.10														
35		1.23 4.19 4.23												1.7	
36		1.4													
JUNE '07								*					2.10 3.12 2.11 3.20 2.12	2.18 2.8 2.7	2.16 3.7 2.25 3.2

*** This lesson included the following questions from the June '07 exam: 2.2, 9, 17, 21, and 23; 3.5, 13, 14, 17, and 20. These questions were used for discussion in subsequent lessons.**

† This lesson included a series of questions from Practice Test 30, Section 4: 1, 6, 8, 11, 12, 14, 15, 17, 18, 19, 20, 23, 24, and 25.

LOGIC GAMES & READING COMPREHENSION QUESTIONS DISCUSSED

LEFT = LOGIC GAMES | RIGHT = READING COMPREHENSION

	3	21	26	28	29
26	1.8 1.9 1.10 1.11 1.12				
27		2.1 2.2 2.3 2.4 2.5			
29			3.1 3.4 3.6 3.14 3.15 3.16		3.8 3.9 3.10 3.11 3.12 3.13
31					2.8 2.9 2.10 2.11 2.12 2.13
JUNE '07				*	

*** This lesson included all game questions from the June '07 exam.**

	4	23	24	25	35	36	38
15			1.4 1.7 1.22 1.27				
16				4.5 4.7 4.16 4.20			
18			3.17 3.19 3.22 3.27				
22		1.9 1.15					
25		1.22 1.24					
28		3.15 3.18 4.25 4.26					
29					2.1 2.4 2.5 2.2 2.3		
30						3.7 3.9 3.14 3.23 3.24 3.25	
31					4.21 4.26 4.22 4.27 4.24 4.28		
33	2.15 2.16 2.17 2.18 2.19 2.20 2.21 2.22						
JUNE '07							†
RE-CENT				64.15* 64.17 65.14 65.17		62.16 62.18 62.19 63.24 63.25 63.27	

† This lesson included all **Reading Comprehension questions** from the June '07 exam.

*** Questions from Recent exams listed by PT and Question number.**

Why Older Questions?

You may notice that most of the questions used in this book come from exams that are a few years old. These questions were selected for two main reasons:

1. Older questions cost just a bit less to license. That means I can fit more questions in and charge less for the book without sacrificing any quality.

2. More importantly, I used older questions to ensure that you have more recent questions for your drilling and practice exams.

Please do keep in mind that I did have to use some recent exams to discuss comparative passages (which did not appear until the June '07 exam).

LIST OF LOGICAL REASONING QUESTIONS BY TYPE FOR EXAMS 52-56

	52.1	52.3	53.1	53.3	54.2	54.4	55.1	55.3	56.2	56.3
Flaw	2, 6, 23	4, 8, 12, 16, 21	18, 22, 25	2, 6, 17	1, 15, 19, 22	4, 14, 16	14, 20, 24	2, 11, 18, 25	1, 12, 15	1, 4, 10, 17, 21
Assumption					2				4	
Match the Flaw	16	24	21	13	5	8, 19	1	23	7	14
Strengthen	4	3	1, 6, 10	1, 11, 25	24	1, 20	23	3, 14	14, 24	7, 8, 13
Weaken	12, 21	6, 19	3, 8	4, 9, 14, 16	3, 14	10	7, 9, 22	4, 9, 22	3, 8	20
Req. Assumption	10, 25	7, 9, 13	9, 13, 15, 23	8, 15, 20	6, 9	3, 7, 18, 24	2, 12, 17	8, 19, 24	6	9, 18, 25
Suf. Assumption	8, 17, 20	15	20		13, 26	22	4	10,21	10	16
Conform to / Supporting Prin.	19	1, 11	5	12, 18	8, 18	9	6, 10, 21	6, 17	16, 20	3, 12
Reasoning Strategy	9	5	2, 12	24	10	2	3	15	5, 11	6
Conclusion	1	2	4	3, 5	11	11	18	13, 20		5, 19
Role		17	11, 14	10	17	15	19	7	9, 25	
Match the Reasoning	3		19	23	21,23	25				24
Inference	5, 7, 13, 15, 18, 24	14, 18, 23	7, 16	7, 19, 21	7, 12, 16, 20, 25	5, 12, 23	5, 8, 15, 25	5, 12, 16	19, 23	2, 11, 15, 22†
Explain This	11, 14	20, 21	24	22	4	6, 13, 21	13	1	13, 22	
Give an Example	22	25	17			17	11, 16		18	23
Identify the Disagreement		10							2*, 17, 21	

* Identify Agreement

† Must be False

LIST OF LOGICAL REASONING QUESTIONS BY TYPE FOR EXAMS 57-61

	57.2	57.3	58.1	58.4	59.2	59.3	60.1	60.3	61.2	61.4
Flaw	4, 6, 9, 15, 26	2, 8, 10, 18, 22	9, 11, 18	5, 8, 14, 18	4, 6, 8, 15, 20	5, 8, 20, 22, 24	1, 10, 12, 15	8, 16, 19	1, 8, 18, 23	11, 15, 24
Assumption										2
Match the Flaw	8	15	7	22	9	15	21	23		26
Strengthen	5, 12, 22	9	3	23	1, 3, 5, 22	11	11	2, 20, 21	6, 22	4, 19
Weaken	14, 17, 20	6, 11	5, 24	2, 10	21, 25	2, 13	6, 13, 16	4, 13	11, 14, 20	8, 21
Req. Assumption	24	12, 17	1, 14, 16, 19, 22	11, 17, 21	14	12, 16, 25	7, 14, 20	11, 22	16	20
Suf. Assumption	7	24	12, 25	19, 24	17, 26	10	22	3	13, 24	13, 25
Conform to / Supporting Prin.	1, 10	16, 19	4, 23	16, 25	13, 23	18,	18, 23, 25	9, 24	5, 21	1, 23
Reasoning Strategy		5	6, 26	12		14, 23	2		4	
Conclusion		3	13	3	10	9	8	15	9	6, 16
Role	13, 16, 21	21			7, 18		4	5, 7	17	17, 22
Match the Reasoning	19	20			16		17	6		9
Inference	2, 18, 23*, 25	13, 14*, 23, 25	10, 15, 20	6, 9, 13, 15	12, 19, 24	3, 7, 19, 21	3, 24	10, 12, 14, 17	3, 10, 15	3, 5, 7, 10
Explain This	3	1, 4, 7	8, 17	1, 7, 20	11	1, 4, 17	5, 9	1	12, 19, 25	12, 14
Give an Example			2, 21	4		6		18	2	
Identify the Disagreement	11				2			25	7	18
Removed from Scoring						19				

*** Least Supported**

LIST OF LOGIC GAMES BY CHARACTERISTIC FOR EXAMS 52-61

Exams	52				53				54				55				56				57				58				59				60				61				t
Game	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	40
Ord	•		•	•		•	•	•		•	•	•		•	•	•	•			•	•	•		•	•		•			•		•	•	•	•			•	•	•	27
Grp		•			•			•	•	•			•					•	•	•			•			•		•	•		•					•	•				16
Sub			•				•		•			•	•		•	•						•	•				•						•			•	•				13
#					•					•				•				•	•			•		•					•						•		•		•		11
Cond		•							•									•					•			•		•			•			•					•		9
ToughOr			•			•						•																										•			4