



LSAT

LOGIC GAMES

SOLUTIONS MANUAL

Complete Solutions to All Analytical Reasoning Sections from PrepTests 1–50

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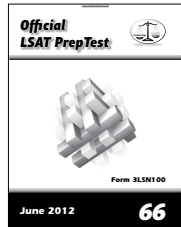
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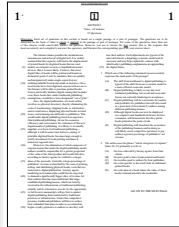
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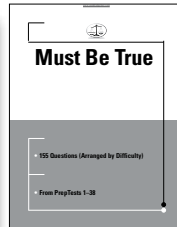
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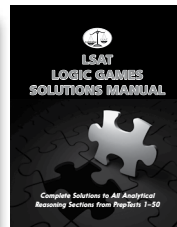
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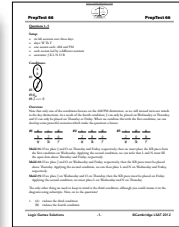
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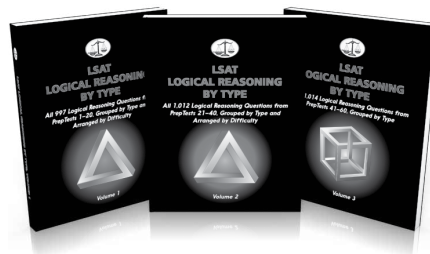
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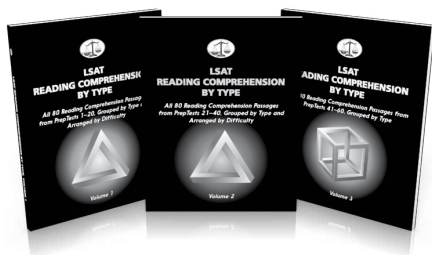
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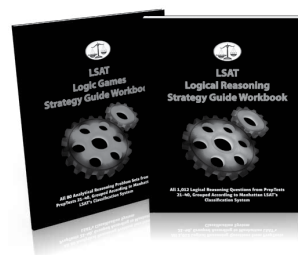
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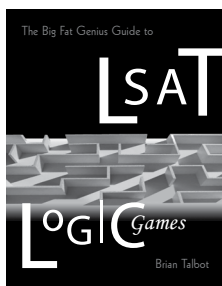
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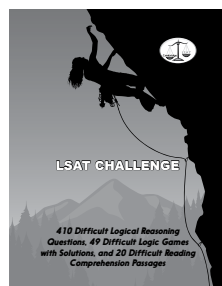
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The LSAT (Law School Admission Test) is one of the biggest factors affecting your potential acceptance to the law school of your dreams. Law school admission committees routinely place a huge emphasis on a person's LSAT score in making their decisions. Although the use of the LSAT in law school admissions decisions is not without controversy, one thing remains certain: to maximize your acceptance offers from the better schools, you must maximize your LSAT potential and score at or near your potential on test day. I hope you find this book to be invaluable to your preparation.

The Logic Games (formally known as Analytical Reasoning) section of the LSAT tends to be a polarizing element of the test. Some welcome the challenge while others view the section as a loss before even attempting any of the games. In terms of its initial foreignness, Logic Games, more so than Logical Reasoning and Reading Comprehension, can be “learned.” The required thinking is not something that is readily taught in college, and takes a good deal of getting used to for the average student. While a perfect score on the section may not be essential to achieve a great LSAT score, strong games performance can make the difference between a good score and a 99th percentile score. Those who excel at games have systems which they've perfected through regular practice and they know how to adapt those systems to the curveball games LSAC can, and inevitably will, throw on test day.

This book is not meant to be an introduction to LSAT Logic Games. Rather, it is meant to complement your games practice. There are a number of instructive Logic Games strategy books on the market, among them books by PowerScore, Manhattan LSAT (formerly Atlas LSAT), and Brian Talbot. You can purchase these books at www.cambridgelsat.com/bookstore. This book presumes a certain amount of Logic Games diagramming familiarity and understanding of basic formal logic principles. For those unfamiliar with “LSAT speak,” this means that I'm assuming you've already done your homework and have some kind of strategy guide which has exposed you to the fundamentals of LSAT Logic Games.

For those looking to maximize their LSAT potential, there is a wealth of practice material available. Including the LSAC SuperPrep book and the free PrepTest on LSAC's website, there are over 60 previously administered LSAT tests with which to practice. The only downside to all this material is that, with the exception of SuperPrep, the tests don't come with explanations. While reasoning through answers after correcting a test can have tremendous value as an exercise, it is helpful to have an authoritative source to get the most out of your review. Until now, there hasn't been a book with complete, clear solutions to the first 50 numbered LSAT PrepTests. This book was written over a lengthy period of time with great attention given to the quality and clarity of the explanations. It doesn't contain any of the actual games. You can purchase and print them at www.cambridgelsat.com. You can also purchase hard copies of our LSAT Logic Games by Type books through our bookstore or directly through Amazon.

It is important to attempt the games on your own before looking at the explanations. Once you have gone through the explanations, think about how you can incorporate the presented methods into your future games performance. You may want to revisit games after some time has elapsed to lock in the various concepts. Logic Games can be approached in numerous ways, as evidenced by the many different approaches presented by the various prep companies. The biggest benefit of using this

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book is that it can add new tools to your arsenal. I believe that the solutions presented are the most efficient means to solve the problems. However, you may find some methods more useful than others in regards to your overall system. As such, it may be in your best interest to mix and match different methods in developing your own comprehensive method. These solutions tend to “over diagram,” in the interest of providing the most concrete illustrations. In the heat of battle, it is often advisable to create “bare bones” diagrams for the individual questions, so long as your master diagram includes the important information. While this approach might lead to some oversights in the early stages of your preparation, with practice, you’ll find that it will help you save time on the section as a whole. The way in which you incorporate these methods into your own practice is completely up to you. To receive access to the supplement which contains solutions for PrepTests numbered 51–60, send an e-mail to info@cambridgesat.com. Be sure to let us know if you come across any errors in the book.

Part 6: ***Bonus Solutions***

Questions 1-5

Setup:

- five digit product code

Conditions:

#1: 0 1 2 3 4

#2: each digit occurs exactly once

#3: $2^{\text{nd}} = 2 \times (1^{\text{st}})$ #4: $3^{\text{rd}} < 5^{\text{th}}$

Overview:

The third condition tells us that the first and second digits are either 1 and 2 or 2 and 4, respectively. Combining this information with the fourth condition, we can create two acceptable molds:

$$\begin{array}{cccccc} \underline{1} & \underline{2} & \underline{0|3} & \underline{\quad} & \underline{3|4} & \\ \hline \underline{2} & \underline{4} & \underline{0|1} & \underline{\quad} & \underline{1|3} & \\ \hline 1^{\text{st}} & 2^{\text{nd}} & 3^{\text{rd}} & 4^{\text{th}} & 5^{\text{th}} & \end{array}$$

We can further draw out all the possible solutions from these two molds.

$$\begin{array}{l} \#1 \quad \underline{1} \quad \underline{2} \quad \underline{0} \quad \underline{3} \quad \underline{4} \\ \#2 \quad \underline{1} \quad \underline{2} \quad \underline{0} \quad \underline{4} \quad \underline{3} \\ \#3 \quad \underline{1} \quad \underline{2} \quad \underline{3} \quad \underline{0} \quad \underline{4} \\ \#4 \quad \underline{2} \quad \underline{4} \quad \underline{0} \quad \underline{1} \quad \underline{3} \\ \#5 \quad \underline{2} \quad \underline{4} \quad \underline{0} \quad \underline{3} \quad \underline{1} \\ \#6 \quad \underline{2} & \underline{4} & \underline{1} & \underline{0} & \underline{3} \\ & 1^{\text{st}} & 2^{\text{nd}} & 3^{\text{rd}} & 4^{\text{th}} & 5^{\text{th}} \end{array}$$

1. (A) This is a direct match with the fifth solution, and choice A is therefore correct.
2. (A) see solutions #4, #5, and #6
 (B) this is only true of solution #3
 (C) **Correct – 2 is either first or second**
 (D) this is only true of the solutions #1 and #5
 (E) this is only true of solution #4
3. (C) According to the solutions, 0 can occupy either the third or the fourth slots. Since it's not third, it must be fourth, and choice C is therefore correct.
4. (E) Checking the choices against the solutions reveals that only choice E presents an impossibility, and it is thus correct.

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- 5. (A) see solutions #3, #4, and #6
- (B) see solutions #4 and #5
- (C) see solution #2
- (D) see solutions #4 and #6
- (E) **Correct – with 2 second (solutions #1, #2, and #3), the latest 4 can be is fifth; with 2 first (solutions #4, #5, and #6), 4 is second**

Questions 6-10

Setup:

- 3 films: G H L
- 3 days: Th F S
- each film once during the festival, but not more than once a day
- at least one film per day
- films are shown one at a time

Conditions:

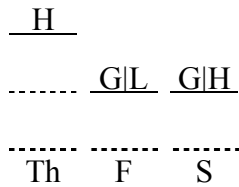
#1: H is last on Thursday

#2: G or L but not both on Friday, none after

#3: G or H but not both on Saturday, none after

Overview:

The second and third conditions limit the number of films for Friday and Saturday to two, but Thursday is unrestricted, in that all three films can be shown on that day. From the second condition, we can deduce that if two films are shown on Friday, the first will be Harvest. From the third condition, we can deduce that if two films are shown on Saturday, the first will be Limelight.



- 6. (A) Greed is not shown
 - (B) violates the second condition
 - (C) **Correct**
 - (D) violates the first condition
 - (E) violates the second condition
7. (A) The second condition states that only Greed or Limelight can be last on Friday, and choice A, therefore, cannot be true.

8. **(D)** This question requires that Greed be shown as late as possible, so that Limelight can be shown as many times as possible. Putting Greed second on Saturday and filling in the rest of the slots with Harvest and Limelight reveals that at most, the festival can feature six showings.

<u>H</u>	<u>L</u>	<u>G</u>
<u>L</u>	<u>H</u>	<u>L</u>
Th	F	S

Assigning all three films to be shown on Thursday and filling in the rest of the slots with Greed and Harvest reveals the same maximum of six films shown during the festival.

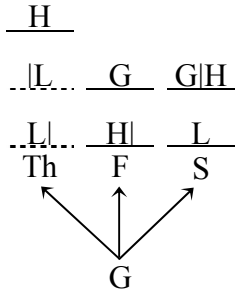
<u>H</u>		
<u>L</u>	<u>G</u>	
<u>G</u>	<u>H</u>	<u>G H</u>
Th	F	S

9. **(E)** Since Greed is shown three times, it has to be last on both Friday and Saturday. Harvest can't also be shown on Saturday (due to the third condition). Therefore, it has to be shown on Thursday and Friday. Since Limelight can't be shown on Friday (all the slots are full), it has to be shown on either Thursday or Saturday. Scanning the answer choices shows that E matches up with the new diagram.

<u>H</u>		
<u> G</u>	<u>G</u>	<u>G</u>
<u>G </u>	<u>H</u>
Th	F	S
L		

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10. **(D)** For Limelight to be shown three times, it must be featured last on Friday and not last on both Thursday and Saturday. Greed could be featured on Thursday, Friday, or Saturday. Harvest will be featured last on Thursday and either first on Friday or last on Saturday. Since Greed or Limelight can be first on Thursday, D is the correct answer.



Questions 11-17

Setup:

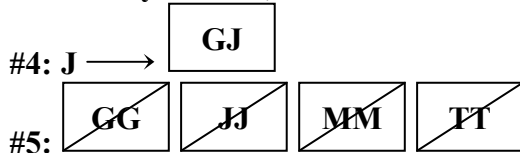
- seven weeks
- four destinations: G J M T
- each destination at least once

Conditions:

#1: $\sim J_4$

#2: T_7

#3: exactly two Ms, at least one G in between (M – G – M)



Overview:

We know for certain that M will be featured exactly twice. Therefore, we can't have a scenario in which one destination is featured four times and the other three are each featured once. The possible allocations of weeks to destinations are:

- 3, 2, 1, 1 (M represents the 2)
- 2, 2, 2, 1 (M and two other destinations are featured twice)

If Jamaica is featured twice, Guadeloupe must also be featured twice (due to the fourth condition), and our list of variables will be G G J J M M T. We can also deduce that Jamaica can't be first or immediately to the right of any placed destinations due to the fourth condition. The second condition and the fifth condition tell us that Trinidad cannot be sixth since it is already seventh. Since each destination must be featured at least once, there will be a GJ piece.

1	2	3	4	5	6	T
~J			~J		~T	

11. **(A) Correct**
 (B) violates the third condition
 (C) violates the fourth condition
 (D) violates the first condition
 (E) violates the second condition
12. **(A)** The fifth condition states that a destination cannot be scheduled for two consecutive weeks, which would be the case if Trinidad were sixth.
13. **(D)** This new information, coupled with the fifth condition tells us that Trinidad can't be scheduled fourth. Also, since the GJ piece requires two spaces, it can only occupy either the first and second or the second and the third spaces.

1	2	3	G M	T	G M	T
~J			~J		~T	
			~T		~J	

Two possible scenarios can be created with this new information:

G	J	M	G	T	M	T
M	G	J	G M	T	G M	T
1	2	3	4	5	6	7

- (A) Trinidad can't be first
 (B) Martinique can't be second
 (C) Guadeloupe can't be third
(D) Correct – see the second scenario
 (E) Jamaica can't be sixth
14. **(E)** We know that Guadeloupe is the destination for week four (due to the fourth condition). Since Martinique has to surround Guadeloupe on both sides, it becomes clear that Martinique has to be the destination during the sixth week. With slots 2, 3, and 6 open, we know that Martinique must be sixth (third condition) and that Martinique and Trinidad will each occupy one of the second and third slots.

G	M T	T M	G	J	M	T
1	2	3	4	5	6	7

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15. (A) With Guadeloupe first and Trinidad second, we only have four slots for M – GJ – M, thus filling out the entire diagram. Therefore, it must be true that Martinique is scheduled for week 3.

G	T	M	G	J	M	T
1	2	3	4	5	6	7

16. (A) The fifth condition combined with the new information tells us that Martinique cannot be second or fourth. Therefore, the fourth slot has to be occupied by either Guadeloupe or Trinidad, eliminating B and C.

		M	G T			T
1	2	3	4	5	6	7
~J	~M		~J		~T	
			~M			

Let's examine the other choices:

- (A) **Correct** – see the following diagram

G	J	M	G	T	M	T
1	2	3	4	5	6	7

- (D) violates the third condition

- (E) under this scenario, the GJ piece would have to be placed in the first and second positions, leaving no open spaces for the M – G – M condition

17. (D) This question asks the test taker to re-examine the setup and conditions. Since any week featuring Jamaica must be preceded by a week featuring Guadeloupe, it's a good idea to look at any choices with Jamaica. If Jamaica were to be featured for three weeks, Guadeloupe would also be featured for three weeks, thus occupying the remaining six slots on the diagram. This scenario would leave no space for the two voyages to Martinique and choice D is therefore correct.

Questions 18-23

Setup:

- three recycling centers: 1 2 3
- exactly five materials recycled: G N P T W
- each center recycles two to three materials

Conditions:

- #1: W →

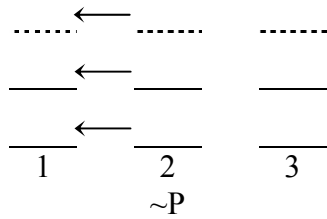
W
N
- #2: 2 → 1; ~1 → ~2 (contrapositive)

- #3: only one center recycles P;

P
G

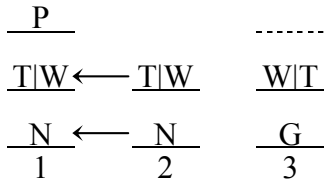
Overview:

We can deduce that Center 2 does not recycle plastic since Center 1 would also recycle plastic, violating the third condition.

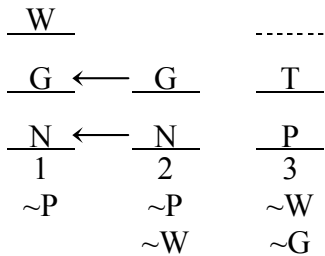


18. (A) Center 3 violates the first condition
(B) Correct
 (C) violates the second condition
 (D) violates the third condition
 (E) violates the third condition
19. **(D)** Because Center 1 recycles every type of material that Center 2 does, Center 2 cannot recycle plastic. If it did, this would violate the second condition. Thus C and E are eliminated. Nothing prevents either Center 1 or Center 3 from recycling plastic, and thus choice D is correct.
20. **(C)** Since Center 2 recycles three types of materials, Center 1 must also recycle those same three types. As three is the maximum number of materials that can be recycled at any one center, and Center 2 cannot recycle plastic, the only center that can recycle plastic is Center 3. Thus, choice C is the correct answer.
21. **(D)** This question maximizes the number of materials that each center can recycle. Due to the second condition, Center 1 and Center 2 must recycle the same three materials. Logically, choices A, C, and E are all incorrect. Center 3 recycles plastic along with two other materials. In choice B, if Center 3 were the only center to recycle newsprint, no other center could recycle wood (due to the first condition). This would only leave tin and glass for the first two centers to recycle, violating the condition of the question stem. Thus, D is the only choice that could be true.

22. (B) We know that Center 3 can't recycle plastic due to the third condition. Center 2 can't recycle plastic because Center 1 would also recycle it, violating the third condition. Therefore, Center 1 must recycle plastic and recycle two other materials along with Center 2. Out of newsprint, tin, and wood, Center 1 must recycle two materials. Looking at the contrapositive of the first condition, if Center 1 didn't recycle newsprint, then it wouldn't recycle wood. Center 1 would therefore recycle plastic and tin. Following this line of reasoning, Center 2 would only recycle tin, which violates the condition that each center must recycle at least two types of materials. Therefore, Center 1 and Center 2 must recycle newsprint and B is correct.



23. (A) Center 1 must also recycle newsprint due to the first condition. Since Center 1 is the only center to recycle wood, it must share two other types of material with Center 2, one of which has to be newsprint. Center 3 is the only center that can recycle plastic and it cannot recycle glass. Therefore, Center 1 and Center 2 must both recycle glass.



- (A) **Correct – could be Center 3**
 (B) is incomplete because Center 1 recycles three types of material
 (C) only Center 1 could recycle these two, but newsprint is missing from the list
 (D) is incomplete because Center 1 recycles newsprint
 (E) none of the three centers can recycle both glass and tin

Appendix

Appendix A: Diagramming Key • 421

Ordering:

$A - B$: A precedes B

$A \begin{matrix} / B \\ \backslash C \end{matrix}$: A precedes both B and C

$A|B$: A or B can occupy the slot

$A - B$ or $\begin{matrix} B \\ A \end{matrix}$: A does not come after B

$A|B - B|A$: exactly one variable is between A and B

AB : A immediately precedes B

\cancel{AB} : A does not immediately precede B

$\bigcirc AB$: A and B occupy consecutive horizontal slots

$\cancel{\bigcirc AB}$: A and B do not occupy consecutive horizontal slots

$\bigcirc \begin{matrix} A \\ B \end{matrix}$: A and B occupy positions in the same row (for games with vertical differentiation)

$\bigcirc ABC$: B is flanked by both A and C (unless otherwise noted)

Grouping:

$A|B$: A or B can occupy the slot

$A \longrightarrow B$: if A, then B

$\sim A \longrightarrow \sim B$: if not A, then not B

$\sim A \longrightarrow B$: if not A, then B (note: this means that at least one of A and B must be selected)

$A \longleftrightarrow B$: both A and B or neither A nor B

$A \longrightarrow \sim B$: if A, then not B (note: this means that A and B cannot both be selected)

.....: a variable may or may not occupy the slot

$\begin{matrix} A \\ B \end{matrix}$: A and B occupy the same group

$\cancel{\begin{matrix} A \\ B \end{matrix}}$: A and B do not occupy the same group

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Categorization systems are, by their nature, somewhat limited in their usefulness. Logic Games are full of patterns, and categorizing them by type can illuminate some of the patterns LSAC draws upon in creating them. On the other hand, some people become too preoccupied with placing each game into a well-defined box, and lose sight of the ends to which the categorization is supposed to lead. This is especially problematic with games that are typically referred to as “hybrid.” Ideally, categorizing games should help you visualize how each individual game should be diagrammed and approached. It can also help you isolate particular types of games which give you the most trouble so that you can drill those types. Since some games have features which are consistent with more than one game type (“hybrid” games), for simplicity, each game is categorized according to its overarching feature. The following classification list excludes the additional limited designations. While these global limitations can often be used to work through a game more efficiently, it is not always essential to deduce them upfront.

Ordering

- o **Relative:** ordering a set of variables relative to each other
- o **Simple:** ordering a set of variables relative to fixed positions
- o **Complex:** ordering two or more sets of variables relative to fixed positions

Grouping

- o **In/Out:** assigning each entity to exactly one of two groups primarily through the application of conditional statements
- o **Distribution:** assigning each entity to exactly one of a given number of groups

Assignment: assigning variables to positions in a structure

- o **Determined:** the exact number of each variable to be placed in the diagram can be deduced from the setup and conditions
- o **Undetermined:** the exact number of each variable to be placed in the diagram is left open by the setup and conditions and can vary from question to question

Miscellaneous: game types which are either rare or obsolete

Limited

- o **Allocations:** limited slot structures or limited variable allocations can be deduced from the setup and conditions
- o **Scenarios:** limited partially-completed diagrams can be deduced from the setup and conditions
- o **Solutions:** limited completed diagrams can be deduced from the setup and conditions

Active Variables: the variables which are to be placed into a particular structure

Appendix C: Games Classifications • 423

<u>PrepTest</u>	<u>Game</u>	<u>Type</u>	<u>Subtype</u>
1	1	Miscellaneous	
	2	Assignment	Undetermined
	3	Ordering	Relative
	4	Assignment	Undetermined
2	1	Ordering	Relative
	2	Assignment	Determined
	3	Miscellaneous	
	4	Ordering	Complex
3	1	Assignment	Undetermined
	2	Ordering	Simple
	3	Assignment	Undetermined
	4	Assignment	Determined
4	1	Ordering	Relative
	2	Assignment	Undetermined
	3	Assignment	Determined
	4	Miscellaneous	
5	1	Assignment	Determined
	2	Assignment	Undetermined
	3	Grouping	In/Out
	4	Ordering	Complex
6	1	Grouping	Distribution
	2	Ordering	Relative
	3	Miscellaneous	
	4	Miscellaneous	
7	1	Ordering	Simple
	2	Assignment	Determined
	3	Grouping	Distribution
	4	Ordering	Complex
8	1	Assignment	Determined
	2	Miscellaneous	
	3	Ordering	Complex
	4	Assignment	Undetermined

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9	1	Assignment	Undetermined
	2	Grouping	In/Out
	3	Assignment	Determined
	4	Miscellaneous	
10	1	Ordering	Relative
	2	Grouping	Distribution
	3	Miscellaneous	
	4	Grouping	In/Out
11	1	Grouping	Distribution
	2	Ordering	Simple
	3	Grouping	In/Out
	4	Miscellaneous	
12	1	Ordering	Simple
	2	Grouping	Distribution
	3	Assignment	Undetermined
	4	Miscellaneous	
13	1	Grouping	Distribution
	2	Ordering	Simple
	3	Assignment	Undetermined
	4	Miscellaneous	
14	1	Assignment	Determined
	2	Ordering	Complex
	3	Grouping	Distribution
	4	Assignment	Undetermined
15	1	Ordering	Simple
	2	Miscellaneous	
	3	Ordering	Simple
	4	Assignment	Undetermined
16	1	Grouping	Distribution
	2	Assignment	Determined
	3	Assignment	Undetermined
	4	Miscellaneous	
17	1	Ordering	Simple
	2	Assignment	Undetermined
	3	Assignment	Undetermined
	4	Assignment	Determined

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18	1	Grouping	Distribution
	2	Ordering	Simple
	3	Miscellaneous	
	4	Miscellaneous	
19	1	Ordering	Simple
	2	Assignment	Determined
	3	Grouping	Distribution
	4	Grouping	Distribution
20	1	Assignment	Determined
	2	Grouping	In/Out
	3	Miscellaneous	
	4	Ordering	Complex
21	1	Assignment	Determined
	2	Miscellaneous	
	3	Assignment	Determined
	4	Assignment	Undetermined
22	1	Grouping	Distribution
	2	Ordering	Complex
	3	Assignment	Undetermined
	4	Assignment	Undetermined
23	1	Ordering	Simple
	2	Grouping	In/Out
	3	Grouping	Distribution
	4	Ordering	Complex
24	1	Grouping	Distribution
	2	Ordering	Simple
	3	Ordering	Complex
	4	Grouping	In/Out
25	1	Assignment	Undetermined
	2	Assignment	Determined
	3	Grouping	In/Out
	4	Ordering	Complex
26	1	Ordering	Complex
	2	Ordering	Simple
	3	Grouping	Distribution
	4	Assignment	Undetermined

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27	1	Ordering	Simple
	2	Assignment	Determined
	3	Grouping	Distribution
	4	Ordering	Simple
28	1	Ordering	Simple
	2	Assignment	Undetermined
	3	Assignment	Determined
	4	Assignment	Determined
29	1	Grouping	Distribution
	2	Assignment	Undetermined
	3	Ordering	Simple
	4	Assignment	Determined
30	1	Miscellaneous	
	2	Ordering	Simple
	3	Ordering	Complex
	4	Ordering	Simple
31	1	Ordering	Complex
	2	Grouping	In/Out
	3	Ordering	Simple
	4	Assignment	Undetermined
32	1	Assignment	Undetermined
	2	Assignment	Undetermined
	3	Ordering	Simple
	4	Ordering	Complex
33	1	Ordering	Relative
	2	Grouping	In/Out
	3	Grouping	In/Out
	4	Assignment	Undetermined
34	1	Ordering	Simple
	2	Ordering	Simple
	3	Ordering	Simple
	4	Grouping	In/Out
35	1	Assignment	Undetermined
	2	Assignment	Undetermined
	3	Assignment	Determined
	4	Assignment	Determined

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36	1	Grouping	In/Out
	2	Ordering	Complex
	3	Assignment	Determined
	4	Ordering	Complex
37	1	Assignment	Determined
	2	Ordering	Complex
	3	Grouping	Distribution
	4	Ordering	Complex
38	1	Ordering	Relative
	2	Ordering	Complex
	3	Grouping	Distribution
	4	Ordering	Complex
39	1	Ordering	Complex
	2	Assignment	Determined
	3	Ordering	Complex
	4	Grouping	In/Out
40	1	Ordering	Simple
	2	Ordering	Simple
	3	Miscellaneous	
	4	Grouping	In/Out
41	1	Ordering	Simple
	2	Ordering	Complex
	3	Grouping	In/Out
	4	Miscellaneous	
42	1	Grouping	In/Out
	2	Ordering	Relative
	3	Assignment	Determined
	4	Assignment	Undetermined
43	1	Ordering	Simple
	2	Ordering	Relative
	3	Assignment	Determined
	4	Assignment	Undetermined
44	1	Ordering	Simple
	2	Grouping	Distribution
	3	Ordering	Complex
	4	Ordering	Complex

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45	1	Ordering	Simple
	2	Assignment	Undetermined
	3	Grouping	In/Out
	4	Assignment	Undetermined
46	1	Ordering	Simple
	2	Assignment	Determined
	3	Ordering	Complex
	4	Assignment	Undetermined
47	1	Ordering	Simple
	2	Grouping	In/Out
	3	Assignment	Undetermined
	4	Assignment	Undetermined
48	1	Grouping	In/Out
	2	Ordering	Relative
	3	Assignment	Undetermined
	4	Assignment	Determined
49	1	Ordering	Simple
	2	Grouping	Distribution
	3	Grouping	In/Out
	4	Ordering	Simple
50	1	Ordering	Simple
	2	Grouping	In/Out
	3	Assignment	Determined
	4	Assignment	Determined

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PT 1, Game 1 1. B 2. A 3. B 4. E 5. E 6. C 7. E	PT 1, Game 2 8. B 9. D 10. A 11. B 12. D 13. C	PT 1, Game 3 14. C 15. E 16. D 17. B 18. D	PT 1, Game 4 19. E 20. A 21. A 22. B 23. E 24. C	PT 2, Game 1 1. D 2. A 3. A 4. E 5. D	PT 2, Game 2 6. D 7. E 8. A 9. E 10. C 11. B 12. C
PT 2, Game 3 13. A 14. D 15. D 16. B 17. C	PT 2, Game 4 18. E 19. B 20. E 21. A 22. E 23. B 24. D	PT 3, Game 1 1. D 2. B 3. A 4. E 5. C 6. A 7. D	PT 3, Game 2 8. C 9. A 10. C 11. A 12. A 13. D	PT 3, Game 3 14. A 15. D 16. D 17. E 18. D 19. A	PT 3, Game 4 20. B 21. C 22. D 23. B 24. C
PT 4, Game 1 1. D 2. C 3. D 4. D 5. C 6. D	PT 4, Game 2 7. E 8. C 9. A 10. E 11. E	PT 4, Game 3 12. B 13. C 14. E 15. A 16. D 17. B	PT 4, Game 4 18. E 19. C 20. D 21. A 22. A 23. C 24. B	PT 5, Game 1 1. C 2. D 3. E 4. E 5. C 6. E	PT 5, Game 2 7. A 8. B 9. B 10. B 11. D
PT 5, Game 3 12. B 13. B 14. C 15. C 16. D 17. B	PT 5, Game 4 18. B 19. C 20. C 21. D 22. A 23. E 24. E	PT 6, Game 1 1. A 2. D 3. C 4. D 5. E 6. D	PT 6, Game 2 7. C 8. E 9. C 10. A 11. B 12. B	PT 6, Game 3 13. E 14. A 15. D 16. A 17. D 18. B 19. C	PT 6, Game 4 20. D 21. C 22. B 23. B 24. A
PT 7, Game 1 1. C 2. A 3. C 4. C 5. E 6. C 7. D	PT 7, Game 2 8. B 9. C 10. E 11. E 12. E	PT 7, Game 3 13. B 14. C 15. E 16. A 17. E 18. B	PT 7, Game 4 19. E 20. D 21. B 22. D 23. B 24. A	PT 8, Game 1 1. D 2. B 3. D 4. D 5. A	PT 8, Game 2 6. C 7. B 8. B 9. D 10. A 11. B 12. E
PT 8, Game 3 13. C 14. C 15. E 16. B 17. D	PT 8, Game 4 18. D 19. B 20. E 21. D 22. B 23. E 24. C	PT 9, Game 1 1. C 2. D 3. B 4. A 5. C 6. D 7. A	PT 9, Game 2 8. D 9. B 10. B 11. B 12. C 13. E	PT 9, Game 3 14. D 15. B 16. B 17. C 18. D	PT 9, Game 4 19. E 20. A 21. D 22. D 23. B 24. A

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PT 10, Game 1	PT 10, Game 2	PT 10, Game 3	PT 10, Game 4	PT 11, Game 1	PT 11, Game 2
1. B	6. A	13. B	19. B	1. A	7. B
2. C	7. E	14. D	20. C	2. E	8. D
3. C	8. E	15. C	21. E	3. B	9. B
4. C	9. E	16. D	22. B	4. D	10. B
5. E	10. B	17. E	23. D	5. C	11. D
	11. C	18. C	24. A	6. B	
	12. B				

PT 11, Game 3	PT 11, Game 4	PT 12, Game 1	PT 12, Game 2	PT 12, Game 3	PT 12, Game 4
12. D	20. E	1. E	7. E	12. D	18. D
13. C	21. E	2. B	8. A	13. B	19. C
14. E	22. A	3. C	9. E	14. B	20. B
15. B	23. B	4. B	10. D	15. A	21. A
16. A	24. A	5. C	11. B	16. C	22. E
17. C		6. D		17. C	23. E
18. A					24. D
19. C					

PT 13, Game 1	PT 13, Game 2	PT 13, Game 3	PT 13, Game 4	PT 14, Game 1	PT 14, Game 2
1. D	7. E	12. B	18. E	1. B	7. E
2. B	8. E	13. A	19. C	2. A	8. A
3. C	9. C	14. E	20. A	3. E	9. B
4. E	10. C	15. D	21. A	4. B	10. C
5. B	11. C	16. B	22. D	5. D	11. E
6. D		17. E	23. C	6. C	12. A
			24. E		

PT 14, Game 3	PT 14, Game 4	PT 15, Game 1	PT 15, Game 2	PT 15, Game 3	PT 15, Game 4
13. D	19. B	1. D	7. D	14. D	20. C
14. D	20. A	2. B	8. A	15. E	21. C
15. D	21. C	3. C	9. E	16. C	22. B
16. D	22. B	4. A	10. E	17. A	23. A
17. B	23. B	5. D	11. D	18. B	24. A
18. E	24. C	6. A	12. E	19. E	
			13. A		

PT 16, Game 1	PT 16, Game 2	PT 16, Game 3	PT 16, Game 4	PT 17, Game 1	PT 17, Game 2
1. D	7. E	13. D	19. D	1. E	6. D
2. E	8. B	14. B	20. E	2. E	7. C
3. A	9. C	15. A	21. A	3. B	8. B
4. E	10. E	16. A	22. C	4. B	9. E
5. C	11. C	17. E	23. A	5. D	10. E
6. D	12. B	18. A	24. C		11. E
					12. B

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PT 17, Game 3 13. E 14. D 15. D 16. B 17. B	PT 17, Game 4 18. A 19. D 20. E 21. C 22. C 23. B 24. B	PT 18, Game 1 1. C 2. D 3. D 4. A 5. C 6. E	PT 18, Game 2 7. D 8. A 9. B 10. D 11. B 12. E 13. C	PT 18, Game 3 14. C 15. C 16. A 17. C 18. E 19. A	PT 18, Game 4 20. E 21. D 22. B 23. E 24. B
PT 19, Game 1 1. B 2. E 3. C 4. E 5. D 6. D 7. C	PT 19, Game 2 8. B 9. C 10. A 11. A 12. C	PT 19, Game 3 13. C 14. E 15. C 16. A 17. B 18. A 19. B	PT 19, Game 4 20. E 21. A 22. C 23. D 24. A	PT 20, Game 1 1. A 2. A 3. D 4. A 5. B	PT 20, Game 2 6. A 7. E 8. B 9. A 10. A 11. C 12. E
PT 20, Game 3 13. C 14. D 15. C 16. E 17. E 18. D	PT 20, Game 4 19. E 20. C 21. D 22. D 23. B 24. C	PT 21, Game 1 1. C 2. B 3. B 4. C 5. A 6. C	PT 21, Game 2 7. D 8. A 9. A 10. B 11. A	PT 21, Game 3 12. D 13. D 14. B 15. E 16. E 17. A	PT 21, Game 4 18. B 19. C 20. B 21. A 22. E 23. D 24. E
PT 22, Game 1 1. D 2. C 3. E 4. B 5. E 6. B 7. B	PT 22, Game 2 8. B 9. B 10. D 11. B 12. B 13. A 14. A	PT 22, Game 3 15. E 16. D 17. C 18. E 19. A	PT 22, Game 4 20. E 21. E 22. E 23. E 24. D	PT 23, Game 1 1. B 2. D 3. B 4. C 5. D	PT 23, Game 2 6. C 7. E 8. E 9. E 10. B 11. B
PT 23, Game 3 12. C 13. A 14. D 15. C 16. B 17. A 18. B	PT 23, Game 4 19. D 20. D 21. B 22. E 23. C 24. A	PT 24, Game 1 1. D 2. A 3. A 4. B 5. C	PT 24, Game 2 6. A 7. B 8. C 9. E 10. A	PT 24, Game 3 11. B 12. A 13. D 14. B 15. E 16. A 17. D	PT 24, Game 4 18. E 19. E 20. E 21. E 22. D 23. C
PT 25, Game 1 1. B 2. B 3. D 4. E 5. D	PT 25, Game 2 6. C 7. A 8. B 9. E 10. B 11. E 12. E	PT 25, Game 3 13. C 14. A 15. D 16. C 17. B 18. C	PT 25, Game 4 19. E 20. D 21. A 22. A 23. A 24. D	PT 26, Game 1 1. C 2. B 3. A 4. D 5. E 6. A 7. D	PT 26, Game 2 8. C 9. E 10. A 11. C 12. A

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PT 26, Game 3	PT 26, Game 4	PT 27, Game 1	PT 27, Game 2	PT 27, Game 3	PT 27, Game 4
13. D	19. B	1. E	7. B	13. D	20. A
14. D	20. D	2. E	8. E	14. A	21. B
15. B	21. A	3. C	9. C	15. C	22. E
16. B	22. A	4. C	10. D	16. A	23. A
17. E	23. A	5. D	11. A	17. E	24. D
18. C	24. E	6. B	12. C	18. B	
				19. E	
PT 28, Game 1	PT 28, Game 2	PT 28, Game 3	PT 28, Game 4	PT 29, Game 1	PT 29, Game 2
1. B	6. D	13. D	19. D	1. D	7. D
2. E	7. B	14. C	20. E	2. C	8. E
3. E	8. C	15. B	21. A	3. A	9. E
4. B	9. B	16. B	22. C	4. B	10. E
5. C	10. A	17. D	23. E	5. B	11. B
	11. B	18. D		6. C	12. B
	12. D				13. C
PT 29, Game 3	PT 29, Game 4	PT 30, Game 1	PT 30, Game 2	PT 30, Game 3	PT 30, Game 4
14. A	20. E	1. D	6. D	11. B	17. B
15. E	21. A	2. A	7. A	12. A	18. C
16. C	22. B	3. C	8. A	13. B	19. C
17. C	23. D	4. D	9. D	14. E	20. D
18. A	24. E	5. B	10. C	15. B	21. A
19. D				16. A	22. A
					23. D
PT 31, Game 1	PT 31, Game 2	PT 31, Game 3	PT 31, Game 4	PT 32, Game 1	PT 32, Game 2
1. E	7. E	14. C	19. B	1. C	7. C
2. B	8. E	15. B	20. D	2. D	8. A
3. D	9. A	16. A	21. A	3. B	9. C
4. C	10. D	17. E	22. E	4. A	10. D
5. A	11. A	18. A	23. D	5. D	11. A
6. C	12. A			6. B	
	13. C				
PT 32, Game 3	PT 32, Game 4	PT 33, Game 1	PT 33, Game 2	PT 33, Game 3	PT 33, Game 4
12. A	19. E	1. C	6. D	13. D	19. B
13. E	20. B	2. A	7. E	14. E	20. D
14. A	21. D	3. E	8. D	15. E	21. B
15. E	22. B	4. D	9. C	16. D	22. E
16. C	23. A	5. B	10. A	17. D	23. D
17. C	24. D		11. A	18. B	
18. D			12. B		
PT 34, Game 1	PT 34, Game 2	PT 34, Game 3	PT 34, Game 4	PT 35, Game 1	PT 35, Game 2
1. C	8. E	13. C	19. B	1. D	6. C
2. E	9. A	14. A	20. A	2. A	7. A
3. B	10. C	15. E	21. C	3. D	8. E
4. D	11. D	16. B	22. A	4. B	9. D
5. A	12. B	17. E	23. E	5. A	10. C
6. E		18. C	24. B		11. D
7. B					12. D

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PT 35, Game 3	PT 35, Game 4	PT 36, Game 1	PT 36, Game 2	PT 36, Game 3	PT 36, Game 4
13. A	18. C	1. B	7. E	14. E	19. A
14. B	19. A	2. D	8. A	15. A	20. C
15. C	20. E	3. E	9. C	16. D	21. D
16. E	21. D	4. C	10. C	17. B	22. C
17. E	22. A	5. E	11. A	18. C	23. D
	23. E	6. C	12. A		
			13. B		
PT 37, Game 1	PT 37, Game 2	PT 37, Game 3	PT 37, Game 4	PT 38, Game 1	PT 38, Game 2
1. D	6. A	12. B	19. A	1. E	8. C
2. B	7. B	13. A	20. A	2. D	9. A
3. D	8. C	14. D	21. D	3. C	10. B
4. D	9. A	15. E	22. B	4. D	11. A
5. D	10. B	16. E	23. B	5. D	12. D
	11. E	17. C	24. C	6. E	13. E
		18. E		7. E	
PT 38, Game 3	PT 38, Game 4	PT 39, Game 1	PT 39, Game 2	PT 39, Game 3	PT 39, Game 4
14. E	20. D	1. D	6. D	12. E	19. C
15. D	21. A	2. C	7. E	13. D	20. A
16. C	22. A	3. A	8. C	14. C	21. A
17. B	23. B	4. C	9. B	15. B	22. C
18. B	24. D	5. C	10. A	16. D	23. B
19. C			11. A	17. D	
				18. D	
PT 40, Game 1	PT 40, Game 2	PT 40, Game 3	PT 40, Game 4	PT 41, Game 1	PT 41, Game 2
1. D	6. D	11. A	18. D	1. A	8. B
2. C	7. C	12. B	19. C	2. B	9. E
3. A	8. A	13. A	20. C	3. E	10. C
4. C	9. E	14. A	21. B	4. E	11. E
5. D	10. B	15. D	22. A	5. B	12. A
		16. B	23. B	6. D	
		17. C		7. D	
PT 41, Game 3	PT 41, Game 4	PT 42, Game 1	PT 42, Game 2	PT 42, Game 3	PT 42, Game 4
13. E	18. C	1. C	6. A	13. A	19. A
14. C	19. D	2. E	7. A	14. A	20. B
15. C	20. A	3. E	8. C	15. C	21. E
16. D	21. C	4. D	9. D	16. D	22. D
17. B	22. A	5. A	10. C	17. A	23. D
	23. B		11. C	18. E	
	24. C		12. C		
PT 43, Game 1	PT 43, Game 2	PT 43, Game 3	PT 43, Game 4	PT 44, Game 1	PT 44, Game 2
1. D	6. C	13. B	18. D	1. C	7. E
2. E	7. E	14. B	19. C	2. D	8. B
3. A	8. E	15. D	20. E	3. E	9. A
4. E	9. A	16. B	21. A	4. E	10. E
5. B	10. D	17. B	22. C	5. D	11. D
	11. A			6. A	12. A
	12. C				

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PT 44, Game 3	PT 44, Game 4	PT 45, Game 1	PT 45, Game 2	PT 45, Game 3	PT 45, Game 4
13. E	18. A	1. E	7. A	13. B	18. A
14. C	19. E	2. B	8. A	14. E	19. A
15. A	20. E	3. C	9. A	15. D	20. E
16. E	21. D	4. D	10. A	16. B	21. C
17. D	22. C	5. B	11. C	17. A	22. C

6. E 12. E

PT 46, Game 1	PT 46, Game 2	PT 46, Game 3	PT 46, Game 4	PT 47, Game 1	PT 47, Game 2
1. A	7. B	12. A	17. C	1. E	6. B
2. A	8. C	13. C	18. C	2. A	7. A
3. D	9. B	14. E	19. B	3. C	8. B
4. A	10. C	15. D	20. D	4. A	9. C
5. E	11. B	16. B	21. E	5. D	10. C
6. A			22. D		11. C

PT 47, Game 3	PT 47, Game 4	PT 48, Game 1	PT 48, Game 2	PT 48, Game 3	PT 48, Game 4
12. E	18. C	1. C	7. C	13. C	18. A
13. D	19. E	2. E	8. B	14. A	19. A
14. B	20. B	3. E	9. C	15. D	20. A
15. C	21. A	4. A	10. E	16. C	21. D
16. C	22. B	5. A	11. D	17. C	22. B
17. B		6. A	12. E		

PT 49, Game 1	PT 49, Game 2	PT 49, Game 3	PT 49, Game 4	PT 50, Game 1	PT 50, Game 2
1. E	8. B	13. A	18. B	1. D	6. E
2. D	9. B	14. C	19. E	2. B	7. D
3. A	10. E	15. A	20. B	3. C	8. B
4. B	11. B	16. D	21. D	4. E	9. A
5. D	12. E	17. E	22. C	5. B	10. E
6. E					
7. D					

PT 50, Game 3	PT 50, Game 4
11. B	18. B
12. B	19. D
13. B	20. E
14. C	21. D
15. A	22. A
16. E	
17. E	