HOW TO SOLVE LOGIC TABLE PUZZLES

Dear Solver,

Here we introduce an alternative to solving logic problems with a conventional crosshatch solving chart, using instead a table-style solving chart.

We provide a solving table in lieu of a conventional crosshatch solving chart whenever a table will make a logic problem easier to solve. This occurs when the conventional crosshatch grid is too big or too awkward to use, or when the puzzles can be solved more naturally with a table. In these cases, a standard grid can make a logic problem seem more difficult than it actually is.

Follow along below as the puzzle is solved to see how useful a table can be when solving a logic problem, and you should be well on your way to honing your "table puzzle" solving skills!

The Editors

SAMPLE PUZZLE—RADIO DAYS

We suggest that you print out this sample puzzle and fill in the blank chart as you follow our attached explanation.

Last week, New York radio station WLIR 92.7 gave away prizes to its listeners each day, Monday through Friday. Once a day, the song "Heaven in My House" was played, and the 92nd person to call after hearing the song was awarded three different prizes from five that were available. No two winners received the same combination of prizes. From the information provided, determine the first and last names (one surname is Valdez) of the winner each weekday, as well as the three prizes each won.

1. Each of the five prizes was won exactly three times. Movie tickets were won every other day.

2. One person won a free shake and movie passes, but not on Friday. One winner received both a free shake and a pizza.

3. Duane won passes to Tan Beatific and passes to see Caballero at the Highcrest Movie Theater. The person surnamed Welles won both tanning and movie passes.

4. The one surnamed Thatcher, who won a free pizza and passes to play miniature golf, won at some point after Cindy and at some point before Duane.

5. Burt Scanlon won at some point after Annie, who did not win movie passes. Annie won the day after the one surnamed Banks, who was not Monday's winner.

6. The ones surnamed Banks and Scanlon both plan to enjoy their free pizza.

7. Everett plans to stop at the ice-cream shop for his free shake.

DAY	FIRST NAME	LAST NAME	PRIZES		

Explanation

Because this puzzle involves five different days, it has an inherent order and will be easier to solve using a table than a crosshatch chart. To begin, write the days Monday through Friday, in chronological order, in the left-hand column, "DAY."

Each prize was won three times and movie passes were won every other day (clue 1), so movie passes must have been won Monday, Wednesday, and Friday. Write "movies" in the first PRIZES column for these days.

DAY	FIRST NAME	LAST NAME	PRIZES		
MON			MOVIES		
TUE					
WED			MOVIES		
THU					
FRI			MOVIES		

Annie didn't win movie passes (clue 5), so she couldn't have won on Monday, Wednesday, or Friday (chart, above), and she couldn't have won on Tuesday, because then the one surnamed Banks would be Monday's winner, which, from clue 5, isn't possible, so Annie won on Thursday, therefore Burt won on Friday, and Banks won on Wednesday (clue 5), and both Banks and Scanlon won pizza (clue 6). Write these results in the proper columns and rows.

DAY	FIRST NAME	LAST NAME	PRIZES		
MON			MOVIES		
TUE					
WED		BANKS	MOVIES	PIZZA	
THU	ANNIE				
FRI	BURT	SCANLON	MOVIES	PIZZA	

Duane won movie passes, so couldn't have won on Tuesday (chart, above) or be the first winner of the week on Monday (clue 4), so he won on Wednesday, thus Thatcher won pizza and golf passes on Tuesday, and Cindy won on Monday (clue 4). Write these answers in their proper locations in the table.

DAY	FIRST NAME	LAST NAME	PRIZES		
MON	CINDY		MOVIES		
TUE		THATCHER	PIZZA	GOLF	
WED	DUANE	BANKS	MOVIES	PIZZA	
THU	ANNIE				
FRI	BURT	SCANLON	MOVIES	PIZZA	

Now, it can be seen that the only first name left unplaced is Everett's, who must have won on Tuesday and who won a shake (clue 6). Welles won movie passes (clue 3), so can't be Annie (clue 5), so is Cindy, leaving Annie as Valdez. Both Duane and Cindy Welles won tanning passes (clue 3). Write these answers in their proper columns and rows in the chart.

DAY	FIRST NAME	LAST NAME	PRIZES		
MON	CINDY	WELLES	MOVIES	TANNING	
TUE	EVERETT	THATCHER	PIZZA	GOLF	SHAKE
WED	DUANE	BANKS	MOVIES	PIZZA	TANNING
THU	ANNIE	VALDEZ			
FRI	BURT	SCANLON	MOVIES	PIZZA	

The movie passes were won on Monday, Wednesday, and Friday (from the chart and above), but the winner of the shake and movie passes (clue 2) didn't win on Wednesday (since that person won movie passes, pizza, and tanning passes) or on Friday (clue 2), so won on Monday.

DAY	FIRST NAME	LAST NAME	PRIZES		
MON	CINDY	WELLES	MOVIES	TANNING	SHAKE
TUE	EVERETT	THATCHER	PIZZA	GOLF	SHAKE
WED	DUANE	BANKS	MOVIES	PIZZA	TANNING
THU	ANNIE	VALDEZ			
FRI	BURT	SCANLON	MOVIES	PIZZA	

Since only one of the three golf passes has been placed, and each prize was won exactly three times (clue 1), the other two golf passes were won on Thursday and Friday. The two remaining prizes were both awarded on Thursday, and consisted of the third free shake and the third tanning pass. Write these answers in their proper rows to complete the puzzle.

SAMPLE PUZZLE COMPLETED

DAY	FIRST NAME	LAST NAME	PRIZES		
MON	CINDY	WELLES	MOVIES	TANNING	SHAKE
TUE	EVERETT	THATCHER	PIZZA	GOLF	SHAKE
WED	DUANE	BANKS	MOVIES	PIZZA	TANNING
THU	ANNIE	VALDEZ	GOLF	SHAKE	TANNING
FRI	BURT	SCANLON	MOVIES	PIZZA	GOLF

How does this example help you to solve other table puzzles? If a puzzle has an order to it (first through fifth, youngest to oldest, et cetera), set your table up to reflect that order. Many eliminations can be seen more easily in this way than in a crosshatch-style solving chart.

OTHER HINTS

Always read the introduction to a puzzle. It describes all the conditions for the logic problem and often contains information that is vital to solving the puzzle.

In puzzles where time is a factor, be sure you completely understand the various relationships. For example:

> Five women are at a jewelry store getting their engagement rings cleaned. Each woman became engaged a different number of months ago (6, 7, 8, 10, or 11).
>
> 1. Sally became engaged 8 months ago.
> 2. Jayne became engaged exactly 2 months after Sally.

So, when did Jayne say "yes" to her man, 6 or 10 months ago? It is clear that, because Jayne became engaged more recently, she was engaged 6 months ago. Although this relationship appears obvious, such conditions have tripped up many solvers.

Take care when interpreting negative information. For example, this statement does not prevent John's house from being viewed at an unspecific time before Mr. Brewer's, nor does it indicate that it was viewed at any time before Mr. Brewer's:

> 1. John's house wasn't the one viewed immediately before Mr. Brewer's.