FEDERAL RESERVE BANK
of CLEVELAND

## Logicals: Dinner and a Movie with Friends

Explore your logic-based reasoning skills with this Logical. Find the answers by using the process of elimination. There are three categories under each person's name and each category contains several options. The goal is to eliminate all but one answer in each category under each person's name to find the answers.

## STORY:

Eight friends go out to dinner and see a movie afterward. Each friend contributes a different amount of money toward the cost of dinner and movie snacks. Everyone parked at a different garage. In total, parking cost \$45, dinner cost \$97, and movie snacks cost \$50.

Figure out the parking fare for each person, how much each person pitched in for the food at the restaurant, and how the cost is split for snacks at the movie. When you figure out the answer for ONE box in the chart, delete that number from all the other boxes in the row because everyone paid a different amount of money.

For example, if a clue states that someone can't pay this much for something, then cross it out under that person's name on the chart. If another clue states that someone paid a certain amount toward something, then circle the amount and cross off that same amount under all other columns in the given category. The last option left in a specific category is your answer.

Here's another example: If a clue states that Elle didn't pay $\$ 20$ at dinner, then you should delete $\$ 20$ from Elle's dinner column. If a clue states that Elle paid $\$ 20$ for dinner, you should circle $\$ 20$ in Elle's dinner column and delete $\$ 20$ in all other dinner columns. (Hint: the clues may be solved out of sequence!)

Answers are at the bottom of the page. Don't peek and have fun!

## CLUES:

1. Subtract Mike's dinner contribution from Cariss' dinner contribution to get her contribution for snacks.
2. Khaz didn't spend $\$ \mathbf{\$}, \$ 6$, or $\$ 8$ on his parking fare.
3. Kathleen spent \$3 on snacks.
4. Zan and Mike donated the most for snacks.
5. Lakisha spent ( $3 \times 16$ ) $-4 \div 11$ dollars on parking.
6. Add Robin's snack contribution to her dinner contribution to get Zan's dinner contribution.
7. Mike spent $\$ 6$ on parking.
8. Zan spent one dollar more on parking than Elle did on snacks, and Zan didn't spend \$10.
9. Khaz spent \$14 on dinner.
10. Cariss spent less than $\$ 9$ for parking, and Robin spent less than \$6 for snacks.
11. Elle spent $\$ 13$ on dinner.
12. Kathleen donated $(100 \div 4)-5 \div 2$ at dinner.
13. Khaz spent even dollar amounts on parking, dinner, and snacks.
14. Mike was one of the people who contributed $\$ .50$ at dinner. Zan, Elle, and Lakisha didn't.
15. Lakisha spent \$4 on snacks.
16. Add Zan's snack contribution to Kathleen's parking fare to get Mike's snack contribution.
17. Khaz spent the least on parking.
18. Robin contributed $110 \div 10$ dollars for dinner.
19. Zan contributed the most for dinner.
20. Cariss spent more money on dinner than Mike.
21. Add Khaz's parking fare to Kathleen's parking fare to get Elle's parking fare.
22. Kathleen spent $\$ 5$ on parking.
23. Khaz spent $1200 \div 20 \div 10$ dollars on snacks.

Note: Due to the file size, this Logical needs to be downloaded and printed in order to complete.
Logicals: Dinner and a Movie with Friends

| Zan | Khaz | Cariss | Robin | Kathleen | Mike | Elle | Lakisha |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PARKING |  |  |  |  |  |  |  |
| $\begin{array}{ll} \$ 10 \\ \$ & 5 \\ \$ & 6 \\ \$ & 2 \\ \$ & 4 \\ \$ & 8 \\ \$ & 3 \\ \$ & 7 \end{array}$ | $\begin{array}{ll} \$ 10 \\ \$ & 5 \\ \$ & 6 \\ \$ & 2 \\ \$ & 4 \\ \$ 8 \\ \$ & 3 \\ \$ & 7 \end{array}$ | $\begin{array}{ll} \$ 10 \\ \$ & 5 \\ \$ & 6 \\ \$ & 2 \\ \$ & 4 \\ \$ 8 \\ \$ & 3 \\ \$ & 7 \end{array}$ | $\begin{array}{ll} \$ 10 \\ \$ & 5 \\ \$ & 6 \\ \$ & 2 \\ \$ & 4 \\ \$ & 8 \\ \$ & 3 \\ \$ & 7 \end{array}$ | $\begin{array}{ll} \$ 10 \\ \$ & 5 \\ \$ & 6 \\ \$ & 2 \\ \$ & 4 \\ \$ 8 \\ \$ & 3 \\ \$ 7 \end{array}$ | $\begin{array}{lr} \$ 10 \\ \$ & 5 \\ \$ & 6 \\ \$ & 2 \\ \$ & 4 \\ \$ & 8 \\ \$ & 3 \\ \$ & 7 \end{array}$ | $\begin{aligned} & \$ 10 \\ & \$ 5 \\ & \$ 6 \\ & \$ 2 \\ & \$ 4 \\ & \$ 8 \\ & \$ 3 \\ & \$ 7 \end{aligned}$ | $\begin{aligned} & \$ 10 \\ & \$ 5 \\ & \$ 8 \\ & \$ 2 \\ & \$ 4 \\ & \$ 8 \\ & \$ 8 \\ & \$ 7 \end{aligned}$ |
| DINNER |  |  |  |  |  |  |  |
| $\$ 10$ $\$ 12.50$ $\$ 13$ $\$ 11$ $\$ 14$ $\$ 16$ $\$ 15$ $\$ 5.50$ | $\begin{aligned} & \$ 10 \\ & \$ 12.50 \\ & \$ 13 \\ & \$ 11 \\ & \$ 14 \\ & \$ 16 \\ & \$ 15 \\ & \$ 5.50 \end{aligned}$ | $\begin{aligned} & \$ 10 \\ & \$ 12.50 \\ & \$ 13 \\ & \$ 11 \\ & \$ 14 \\ & \$ 16 \\ & \$ 15 \\ & \$ 5.50 \end{aligned}$ | $\begin{aligned} & \$ 10 \\ & \$ 12.50 \\ & \$ 13 \\ & \$ 11 \\ & \$ 14 \\ & \$ 16 \\ & \$ 15 \\ & \$ 5.50 \end{aligned}$ | $\begin{aligned} & \$ 10 \\ & \$ 12.50 \\ & \$ 13 \\ & \$ 11 \\ & \$ 14 \\ & \$ 16 \\ & \$ 15 \\ & \$ 5.50 \end{aligned}$ | $\begin{aligned} & \$ 10 \\ & \$ 12.50 \\ & \$ 13 \\ & \$ 11 \\ & \$ 14 \\ & \$ 16 \\ & \$ 15 \\ & \$ 5.50 \end{aligned}$ | $\begin{aligned} & \$ 10 \\ & \$ 12.50 \\ & \$ 13 \\ & \$ 11 \\ & \$ 14 \\ & \$ 16 \\ & \$ 15 \\ & \$ 5.50 \end{aligned}$ | $\begin{aligned} & \$ 10 \\ & \$ 12.50 \\ & \$ 13 \\ & \$ 11 \\ & \$ 14 \\ & \$ 16 \\ & \$ 15 \\ & \$ 5.50 \end{aligned}$ |
| SNACKS |  |  |  |  |  |  |  |
| $\begin{array}{ll} \$ 5 \\ \$ & 9 \\ \$ 14 \\ \$ & 3 \\ \$ & 6 \\ \$ & 4 \\ \$ & 7 \\ \$ & 2 \end{array}$ | $\begin{array}{ll} \$ 5 \\ \$ 9 \\ \$ 14 \\ \$ 3 \\ \$ & 6 \\ \$ 4 \\ \$ & 7 \\ \$ & 2 \end{array}$ | $\begin{array}{ll} \$ 5 \\ \$ 9 \\ \$ 14 \\ \$ 3 \\ \$ 6 \\ \$ 4 \\ \$ 7 \\ \$ & 2 \end{array}$ | $\begin{array}{ll} \$ 5 \\ \$ & 9 \\ \$ 14 \\ \$ 3 \\ \$ & 6 \\ \$ 4 \\ \$ & 7 \\ \$ & 2 \end{array}$ | $\begin{array}{ll} \$ 5 \\ \$ & 9 \\ \$ 14 \\ \$ 3 \\ \$ & 6 \\ \$ 4 \\ \$ & 7 \\ \$ & 2 \end{array}$ | $\begin{aligned} & \$ 5 \\ & \$ 9 \\ & \$ 14 \\ & \$ 3 \\ & \$ 6 \\ & \$ 4 \\ & \$ 7 \\ & \$ 2 \end{aligned}$ | $\begin{array}{ll} \$ 5 \\ \$ 9 \\ \$ 14 \\ \$ 3 \\ \$ & 6 \\ \$ 4 \\ \$ & 7 \\ \$ 2 \end{array}$ | $\begin{array}{ll} \$ 5 \\ \$ & 9 \\ \$ 14 \\ \$ & 3 \\ \$ & 6 \\ \$ 4 \\ \$ & 7 \\ \$ & 2 \end{array}$ |


|  |  | Zan | Khaz | Cariss | Robin | Kathleen | Mike | Elle | Lakisha |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Parking | $\$ 45$ |  |  |  |  |  |  |  |  |
| Dinner | $\$ 97$ |  |  |  |  |  |  |  |  |
| Snacks | $\$ 50$ |  |  |  |  |  |  |  |  |

ANSWER

