

The Birthday Party Puzzle - Solution

Step-by-Step Solution:

1. We know Ana got a book

- * Write "book" next to Ana's name

2. We know Ben loves lemon cake

- * Write "lemon" next to Ben's name

3. We know Mai did not get the toy car, and Tom did not get the ball

- * The person with the ball got vanilla cake
- * Since Tom can't have the ball, and Ana has the book already
- * This means Mai must have the ball and vanilla cake

4. We know the person with chocolate cake got the game

- * Tom can't have chocolate cake (clue 1)
- * Mai has vanilla cake
- * Ben has lemon cake
- * Ana is the only person left who could have chocolate cake
- * So Ana must have the game and chocolate cake

5. Now we can finish the puzzle:

- * Tom is the only person without a gift, so he must have the toy car
- * Tom can't have chocolate cake (already given to Ana)
- * Tom can't have vanilla cake (given to Mai)
- * Tom can't have lemon cake (given to Ben)
- * So Tom must have strawberry cake

Final Answer:

Person | Gift | Cake

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Tom | toy car | strawberry

Ana | book | chocolate

Ben | game | lemon

Mai | ball | vanilla

Check:

- * All the clues match our solution
- * Each person has one gift and one cake
- * No gift or cake is used twice