
BIRTHDAY PARTY

Question 1: BIRTHDAY PARTY

CP013Q01

Arrange the guests around the table to meet all of the conditions listed above. Use drag and drop to position the guests around the table.

BIRTHDAY PARTY SCORING 1

QUESTION INTENT:

Description: Arrange seating at a table subject to complex constraints

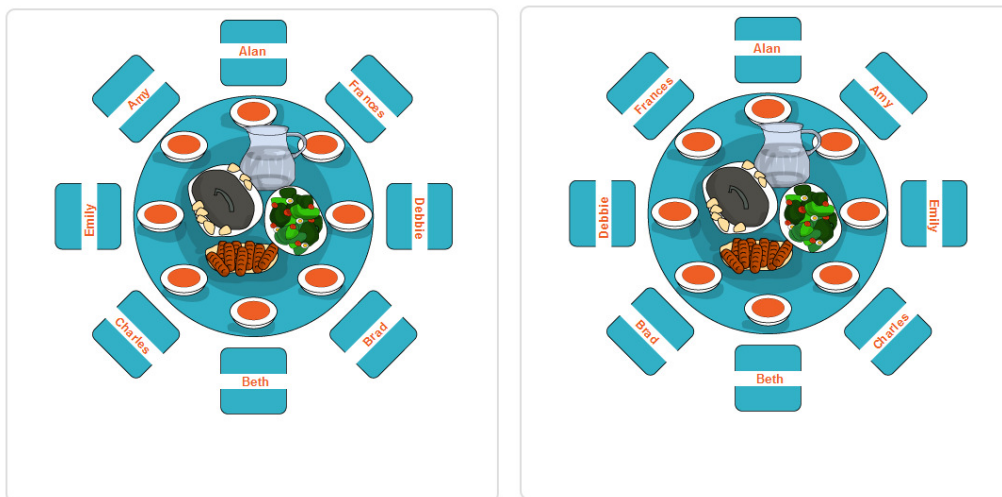
Nature of Problem Situation: Static

Problem Solving Process: Planning and executing

Context: Non-technology, Social

Full Credit

Code 2: Gives a solution that meets all nine conditions. There are twelve possible correct solutions (6 solutions, each with a corresponding mirror image solution). One solution (with its mirror image) is pictured below. The other 10 solutions are described in words.



The ten other solutions are:

- Alan-Amy-Emily-Brad-Beth-Charles-Debbie-Frances (and its mirror image).
- Alan-Amy-Emily-Brad-Beth-Frances-Debbie-Charles (and its mirror image).
- Alan-Amy-Frances-Debbie-Brad-Beth-Emily-Charles (and its mirror image).
- Alan-Amy-Frances-Debbie-Beth-Brad-Emily-Charles (and its mirror image).
- Alan-Amy-Debbie-Frances-Beth-Brad-Emily-Charles (and its mirror image).

Partial Credit

Code 1: Gives a solution that meets eight of the nine conditions. In the examples below, the constraint broken is highlighted.

...the same country, and he is having a party.

Seven other people will attend. Everyone will sit around the dining table.

The seating arrangement must meet the following conditions.

- Amy and Alan sit together.
- Brad and Beth sit together.
- Charles sits next to either Debbie or Emily.
- Frances sits next to Debbie.
- Amy and Alan do not sit next to either Brad or Beth.
- Brad does not sit next to Charles or Frances.
- Debbie and Emily do not sit next to each other.
- Alan does not sit next to either Debbie or Emily.
- Amy does not sit next to Charles.



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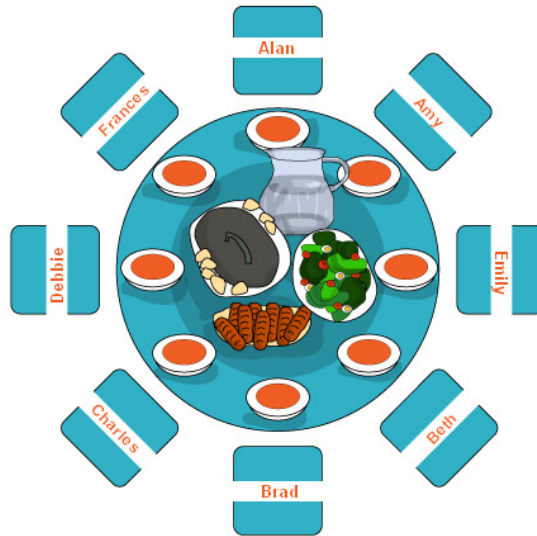
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No Credit

Code 0: Other responses.

Code 9: Missing.