



Problem of the Week

Problem A and Solution

Indoor Recess

Problem

It has been a wet spring so far. It has rained so much that the students at Rising Up Academy were not able to go outside for recess for a whole week, from Monday to Friday. Instead the students chose from the following indoor activities: matching game, Pictionary, checkers, building blocks, and origami. Carlo did a different indoor activity each day.

Using the following clues, determine which indoor activity Carlo did each day.

- (1) On either Tuesday or Friday Carlo played with the building blocks.
- (2) Carlo did origami the day before he played the matching game.
- (3) On Thursday Carlo did not play Pictionary.
- (4) Carlo played the matching game two days before he played checkers.

Solution

From clue (2), we know Carlo did origami the day before he played the matching game. From clue (4), we know Carlo played the matching game two days before he played checkers. So, putting these clues together tells us that we have two possibilities. One possibility is that Carlo did origami on Tuesday, played the matching game on Wednesday, and played checkers on Friday. Another possibility is that Carlo did origami on Monday, played the matching game on Tuesday, and played checkers on Thursday. Let's look at each of these possibilities.

- Suppose Carlo did origami on Tuesday, played the matching game on Wednesday, and played checkers on Friday. Then he must have played Pictionary and played with the building blocks on Monday and Thursday, in some order. However, from clue (3) we know that Carlo did not play Pictionary on Thursday and from clue (1) we know that Carlo did not play with the building blocks on Thursday. Therefore this possibility won't work.
- Suppose Carlo did origami on Monday, played the matching game on Tuesday, and played checkers on Thursday. Then he must have played Pictionary and played with the building blocks on Wednesday and Friday, in some order. We know from clue (1) that Carlo did not play with the building blocks on Wednesday. That means he must have played with the building blocks on Friday, and played Pictionary on Wednesday. We can verify that this order satisfies all four clues given in the problem.

Therefore, Carlo did origami on Monday, played the matching game on Tuesday, played Pictionary on Wednesday, played checkers on Thursday, and played with the building blocks on Friday.