



Problem of the Week

Problem E

Sum View

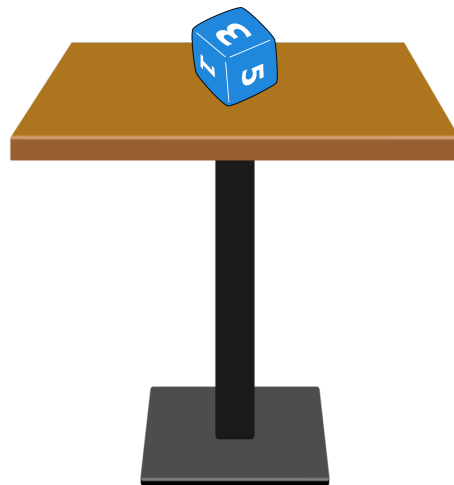
The six faces of a cube have each been marked with one of the numbers 1, 2, 3, 4, 5, and 6, with each number being used exactly once.

Three people, Paul, Lee, and Jenny, are seated around a square table.

The cube is placed on the table so that from their different seat locations, each one can see the top face and two adjacent side faces. No two people see the same pair of adjacent side faces.

When Paul adds the three numbers that he can see, his total is 9. When Lee adds the three numbers that they can see, their total is 14. When Jenny adds the three numbers that she can see, her total is 15.

Determine all possibilities for the number on the bottom face of the cube.



Note that the three faces that are visible on the above cube add to 9. The picture is for illustration only. Do not assume anything from the above diagram.

