Problem of the Week Problem E

A Different Point of View

Each of the numbers 1, 2, 3, 4, 5, 6 occurs, one to a face, on the faces of a cube.

Three people, Bel, Cal and Dan, are seated around a rectangular table. Bel is seated on one side of the table. Cal is seated on the side of the table which is adjacent to Bel and to her right. Dan is seated on the side of the table which is adjacent to Cal and to his right. There is an empty seat along the side which is adjacent to both Bel and Dan.

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.

When Bel adds the three numbers that she can see, her total is 9. When Cal adds the three numbers that he can see, his total is 14. When Dan adds the three numbers that he can see, his total is 15.

Determine the number on the bottom face of the cube.

