

$$\begin{aligned}
& \forall (i, j : \mathbb{N} | 0 \leq i < 2 \wedge 0 \leq j < 2 : \\
& \quad \exists (k, l : \mathbb{N} | 0 \leq k < 2 \wedge 0 \leq l < 2 \wedge (k \neq i \wedge l \neq j) : \\
& \quad \quad \exists (m, n : \mathbb{N} | 0 \leq m < 2 \wedge 0 \leq n < 2 \wedge (m \neq k \wedge n \neq j) \\
& \quad \quad \wedge i - k = -(i - m) \wedge j - l = -(j - n)) : \\
& \quad \quad \quad board[i][j] = board[k][l] = board[m][n])
\end{aligned}$$