Our heuristic returns a score based on the current board state. We check every (x,y) position of the board, and per position, we check the consecutive 4 pieces in the horizon, vertical, left diagonal, and right diagonal directions. The total board state score is based off the sum of these consecutive scores based off the criteria:
If next consecutive piece is not ours, +0
If there are 1 blank(s) and 3 piece(s), +300 / -300
If there are 2 blank(s) and 2 piece(s), +100 / -100
If there are 3 blank(s) and 1 piece(s), +10 / -10
If the current state is game over, +25,000 / -25,000
If the current position we are checking belongs to the opponent, then the score is a sum of the negative values above.

$totalScore = \sum(hScore + vScore + rdScore + ldScore)$
$hScore = sum(f(n))$ $vScore = sum(f(n))$
$rdScore = sum(f(n))$ $ldScore = sum(f(n))$
$f(n) = 0$ if mismatched consecutive pieces or a blank
$f(n) = 300$ |-300 if 1 blank and 3 pieces; us | opponent
$f(n) = 100$ |-100 if 2 blank and 2 pieces; us | opponent
$f(n) = 10$ | -10 if 3 blank and 1 pieces; us | opponent

For board state (us: x, opponent: o)

	o_7					
	x_4	x_5	x_6			
	x_1	o_2	o_3			

Our State Score = 410

$$
\begin{aligned}
totalScore = & \\
& + (hScore = (0_1 - 100_2 - 10_3 + 300_4 + 100_5 + 10_6 - 10_7)) \\
& + (vScore = (0_1 - 0_2 - 0_3 + 0_4 + 10_5 + 10_6 - 10_7)) \\
& + (rdScore = (100_1 - 0_2 - 10_3 + 10_4 + 10_5 + 10_6 - 10_7)) \\
& + (ldScore = (0_1 - 0_2 - 0_3 + 0_4 + 0_5 + 10_6 - 0_7))
\end{aligned}
$$