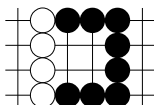
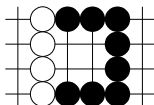


Endgame Problems 2 - Extract / Draft - Problem 73

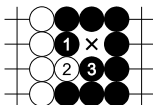
Robert Jasiek, 2020-01-20



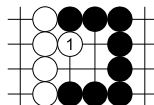
Problem 73



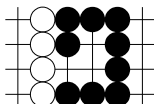
Answer 73: Black's long gote, $C = 1/2$, $M = 1/2$



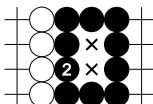
Dia. 73.1: traversal, $B = 1$, $G_{B1} = G_{B2} = 3/4$



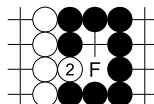
Dia. 73.2: $W = 0$



Dia. 73.3: after move 1, $C_3 = 1 \ 1/4$, $M_3 = 3/4$



Dia. 73.4: $C_4 = 2$



Dia. 73.5: $C_5 = 1/2$, $M_5 = 1/2$

Dia. 73.5: From Answer 2, we know that the follow-up F has the count $C_5 = 1/2$ and move value $M_5 = 1/2$. Therefore, Black 3 in Dia. 73.1 gains $G_{B3} = 1/2$.

Dia. 73.3: Compare Answer 157. We have a simple gote with the gote count $C_3 = (C_4 + C_5) / 2 = (2 + 1/2) / 2 = 1 \ 1/4$, gote move value $M_3 = (C_4 - C_5) / 2 = (2 - 1/2) / 2 = 3/4$ and smaller follow-up move value $M_5 = 1/2$.

Answer 73: White 2 (move 2 of Black's alternating sequence in Dia. 73.1) in Dia. 73.5 gains $G_{B2} = C_3 - C_5 = 1 \ 1/4 - 1/2 = 3/4$. Black 3 gains $G_{B3} = B - C_5 = 1 - 1/2 = 1/2$.

We make the hypothesis that the initial local endgame is Black's long gote with Black's alternating sequence in Dia. 73.1, White's alternating sequence in Dia. 73.2, the tentative gote count $C = (B + W) / 2 = (1 + 0) / 2 = 1/2$, tentative gote move value $M = (B - W) / 2 = (1 - 0) / 2 = 1/2$, tentative gain $G_{B1} = C_3 - C = 1 \ 1/4 - 1/2 = 3/4$ of Black 1 and tentative gain $G_{W1} = C - W = 1/2 - 0 = 1/2$. The fulfilled conditions $M \leq G_{B1}$, G_{B2} , $G_{B3} \iff 1/2 \leq 3/4, 3/4, 1/2$ and $M \leq G_{W1} \iff 1/2 \leq 1/2$ confirm the hypothesis. Dia. 73.1 shows a traversal sequence.

The gains $G_{B1} = G_{B2} = 3/4$ of Black 1 and White 2 in Dia. 73.1 allow Black to play Black 1 - White 2 as a sente exchange when the temperature is at most $3/4$. The move value $M = 1/2$ and the gains being at least $1/2$ describe that either player can start local play and, if Black starts, the players can play the traversal sequence. White can start local play later than Black.