\[ s_i(1): \]
\[ f^1: \]
\[ |d_i^1|: \]

\[ s_i(k): \]
\[ f^k: \]
\[ |d_i^k|: \]

(a) Step \( k = 1 \)

(b) Start of step \( k \)

\[ s_i(k+1): \]
\[ f^{k+1}: \]
\[ |d_i^{k+1}|: \]

\[ s_i(k+1): \]
\[ f^{k+1}: \]
\[ |d_i^{k+1}|: \]

(c) Start of \( k + 1 \)
if \( f^k \in s_i(1, \ldots, k - 1) \)

(d) Start of \( k + 1 \)
if \( f^k \notin s_i(1, \ldots, k - 1) \)