vertex	type	index	Value of $T[i]$	set S_i
p_i	1	1	0, 1, 2 or 3	$v_i \in S_i$
s_i	2	1	1 or 2	$S_i = \{h_i\} \text{ or } S_i = \{l_i\}$
q_i	2	1	3	$S_i = \{h_i, l_i\}$
r_i	2	2	3	$S_i = \{h_i, m_i\}$
t_i	3	1	0 or 2	$S_i = \{m_i\} \text{ or } S_i = \Phi$
u_i	4	1	0 or 2	$S_i = \{m_i\} \text{ or } S_i = \Phi$