

HANDLEREGULARVERTEX(v_i)

1. **if** the interior of \mathcal{P} lies to the right of v_i
2. **then if** $helper(e_{i-1})$ is a merge vertex
3. **then** Insert the diagonal connecting v_i to $helper(e_{i-1})$ in \mathcal{D} .
4. Delete e_{i-1} from \mathcal{T} .
5. Insert e_i in \mathcal{T} and set $helper(e_i)$ to v_i .
6. **else** Search in \mathcal{T} to find the edge e_j directly left of v_i .
7. **if** $helper(e_j)$ is a merge vertex
8. **then** Insert the diagonal connecting v_i to $helper(e_j)$ in \mathcal{D} .
9. $helper(e_j) \leftarrow v_i$