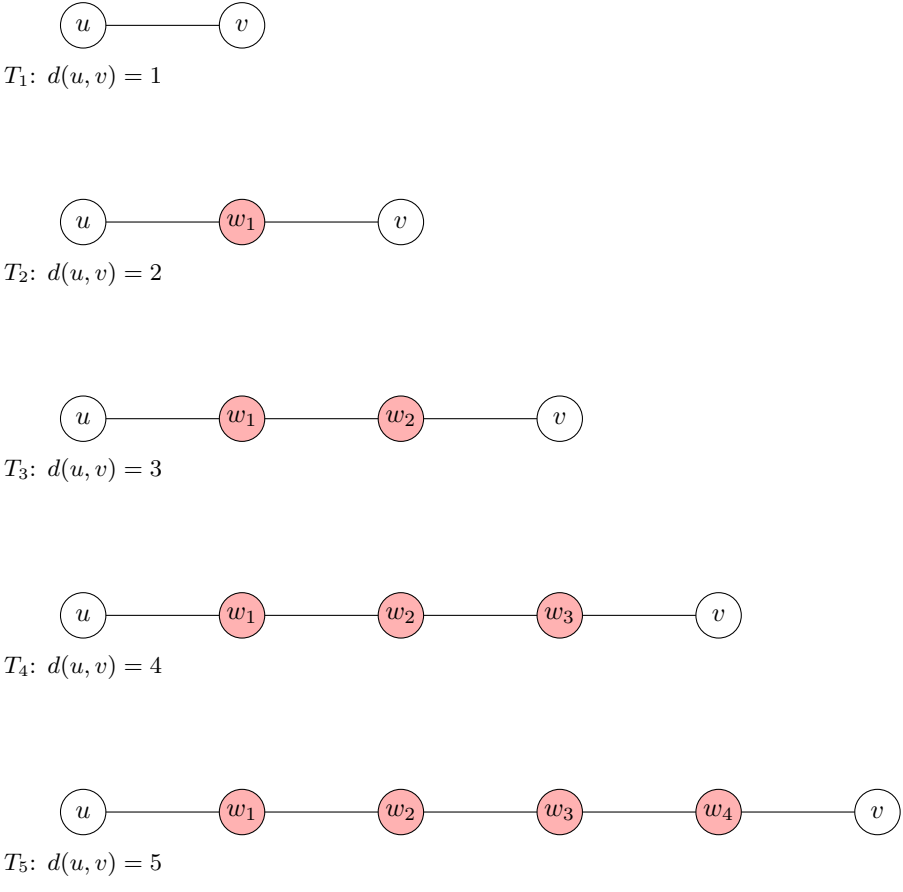

Figure 1: Trees T_i for $1 \leq i \leq 5$ with vertices u and v at distance i, and S_i (red) as the set of intermediate vertices. Condition i of Theorem **??** fails for u and v because no vertex in S_i is adjacent to both.