A $\qquad\qquad\qquad$ A'

$d = (S, T, D) \iff d'(t_1 - 1, \ldots, t_s - 1, D)$

D: $d_1, \ldots, d_n$

$\Leftarrow$ add a new vertex v adjacent to the s vertices (with degrees $t_1 - 1, \ldots, t_s - 1$)

$\Rightarrow$ case 1) S is adjacent to T, remove S, A -> A'

case 2) " not adjacent " for $1 \le i \le s$

$d(S,T,D)$ is non-increasing order

S has at least degree of s so S must be adjacent to some $d_j \in D$ for $1 \le j \le n$.

We know $t_i \ge d_j$

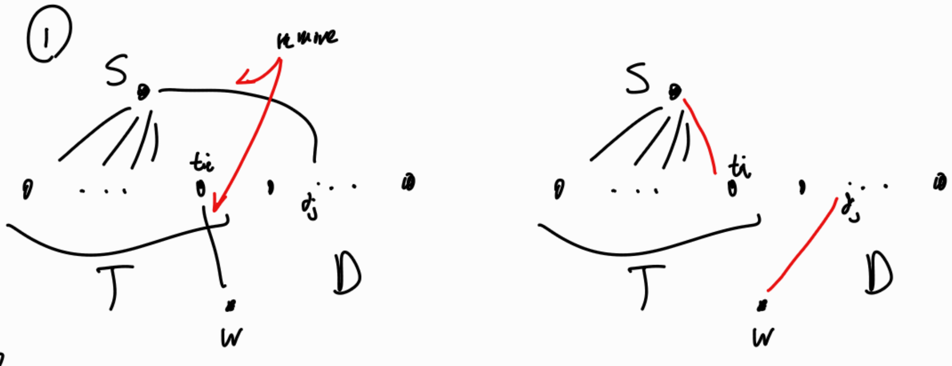
$t_i = d_j$

Then, switch t_i and d_j & connect S to d_j instead of t_i

$t_i > d_j$

Let $W \in T_i$, but $W \notin D_j$

Then, remove $\{S, D_j\}$ and $\{T_i, W\}$ and add $\{S, T_i\}$ and $\{W, D_j\}$



Using this method, any vertex not connected to S can be adjusted so that S is adjacent to T_i, while effectively preserves degree sequence

∴ we have the first trivial case

Reduction within reduction !!

∴ A is graphic IFF A' is graphic $\square$