

p9.2

简单图最多 $m = C_n^2 = \frac{1}{2}n(n-1)$ $m > \frac{1}{2}(n-1)(n-2)$.

若 $\exists v_i$ 孤立, 则 $m = C_n^2 - (n-1) = \frac{1}{2}(n-1)(n-2)$ \therefore 矛盾. ---

p9.3

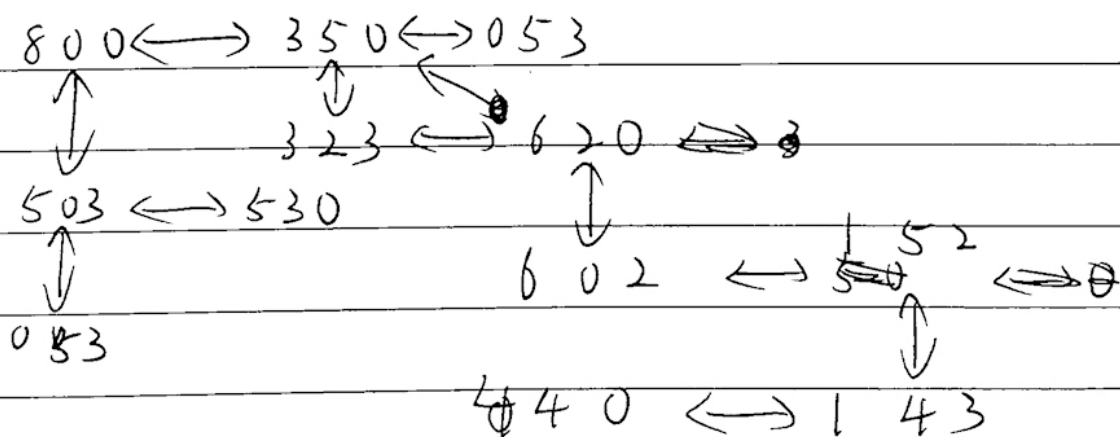
共 $m = \frac{1}{2}n(n-1)$ 条边, 每个 node 有 $n-1$ 条边

$$\sum (d^+)^2 = \sum (d^-)^2 \Leftrightarrow \sum (d^+ - d^-)^2 = 0 \Leftrightarrow (n-1) \sum (d^+ - d^-) = 0$$

很显然 $\sum d^+ = \sum d^-$

p9.4

8 5 3



$\therefore 800 \rightarrow 350 \rightarrow \cancel{0}323 \rightarrow 620 \rightarrow 602 \rightarrow 152 \rightarrow 143$

\downarrow
440

P10.7.

$$|V_1| = |V_2|, |E_1| = |E_2|.$$

(a) 中度非增排列

(b) 中度 --

4 4 3 3 2 2.

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同构. $V_1 \leftrightarrow b, V_3 \leftrightarrow c, V_2 \leftrightarrow a, V_5 \leftrightarrow d, V_6 \leftrightarrow f, V_4 \leftrightarrow e$.