学生姓名：
日期：

图论作业221025

2. 设T有n个4度顶点

$2x(n+12)=4n+9+3x3$

$n=2$

3. 设T有n片树叶

$n+\sum_{i=2}^{k} in_i = 2x(n+\sum_{i=2}^{k} n_i - 1)$

$\sum_{i=3}^{k}(i-2)n_i = n-2$

$n=\sum_{i=3}^{k}(i-2)n_i+2$

7. 设G的连通分支为$G_1, G_2, \cdots, G_k$，G_i是树，$i=1,2,\cdots k$

对G_i，$|V(G_i)|=n_i$，$|E(G_i)|=m_i$

$n_i=m_i+1$，$\sum_{i=1}^{k} n_i = n = |V(G)|$，$\sum_{i=1}^{k} m_i = m = |E(G)|$

$n=\sum_{i=1}^{k} n_i = \sum_{i=1}^{k}(m_i+1) = m+k$. 得证