

Math 5405 - Fall 2007

Homework # 4

Due September 27, 2007

Directions: Be sure to show all work!!

1. Problem # 2.2.1

2. Problem # 2.2.8

3. Problem # 2.2.20

4. Problem # 2.1.29

5. Let T be a tree of order n , $n \geq 2$, with vertex set $V = \{v_1, v_2, \dots, v_n\}$. Prove that the number of end-vertices of T is

$$1 + \frac{1}{2} \sum_{i=1}^n |d(v_i) - 2|$$