6.3

8. Consider a tree with n vertices. It has exactly $n - 1$ edges [Lemma 2], so the sum of its of the degrees of its vertices is $2n - 2$.

   (a) A tree has two vertices of degree 5, three of degree 3, two of degree 2, and the rest of degree 1. How many vertices are in the graph?

   $2|E(G)| = 2n - 2 = 2(5) + 3(3) + 2(2) + x$