

degree sequence of a Graph

Let d_1, d_2, \dots, d_n be the degree of the vertices v_1, v_2, \dots, v_n of a graph G such that $d_1 \leq d_2 \leq \dots \leq d_n$, then the finite sequence (d_1, d_2, \dots, d_n) is called the degree ~~of~~ ~~the~~ sequence of G .

Properties for draw a graph from degree sequence.

- ① If the sum of the degree of the vertices is not even then the graph corresponding to the given degree sequence can't be drawn.
- ② If the total no. of odd number vertices is odd then the graph corresponding to given sequence can't be drawn.
- ③ The degree of a vertex of a simple graph G on ' n ' vertices can not exceed $(n-1)$.
i.e. $d_i \leq n-1$ for all $i = 1, 2, \dots, n$.