

Graph theory

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Definition.

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Definition (Graph). A graph “on a set V ”

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$$d(G) := \frac{1}{|V(G)|} \sum_{v \in V(G)} d_G(v)$$

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 Deleting v_0 with $d_G(v_0) \leq \epsilon(G)$, to obtain G_1 ,

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Deleting v_1 with $d_{G_1}(v_0) \leq \epsilon(G_1)$, to obtain G_2 ,

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$\delta(G) := \min\{d_G(v) \mid v \in V(G)\}$ (minimum degree)
 $\Delta(G) := \max\{d_G(v) \mid v \in V(G)\}$ (maximum degree)

$$\epsilon(G) = d(G)/2$$

Deleting v_0 with $d_G(v_0) \leq \epsilon(G)$, to obtain G_1 ,

Observe $\epsilon(G_1) \geq \epsilon(G)$

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 H &:= G_i \subset G_{i-1} \subset \cdots \subset G_1 \subset G \\
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 $\{x, y\} \in E(G_1) \iff \{\phi(x), \phi(y)\} \in E(G_2)$