\[ p = \frac{1}{n-1} \leq \frac{n}{2} \leq \frac{n}{2k} \geq \frac{Gk \log n}{n} \]
$E(\mathcal{C}(X)) = E$ 

$X_{1+T} \cdots X_{n+T}$
\[ n^k p^k \geq n^i p^i \]

for \( 3 \leq i \leq k \)

\[ np = n \cdot \frac{1}{n^{i-1}} = n^{\Sigma} > 1 \]
\[
P(x \geq a) \leq \frac{E(x)}{a}
\]

\[
\binom{k-2}{k} n^{k-1} \frac{1}{k^{k-1} \log 3} < \frac{1}{k} \cdot \binom{k-3}{k} \cdot \Delta(k-2) \cdot \frac{1}{\log 3}
\]
\[ P_r \left( \exists \text{ a independent set of cardinality } \geq \frac{n}{2k} \right) + P_r \left( X \geq \frac{n}{2} \right) < \frac{1}{2} \]
\[ \leq \frac{h}{2k} \]

\[ x(a) \geq \frac{n/2}{n/2k} \geq 1 \]
\[ \lim_{n \to \infty} \frac{p(n)}{t(n)} \to 0 \text{ as } n \to \infty \]

\[ p(n) \text{ is strictly smaller than } t(n) \]

\[ p(\alpha \notin \emptyset) \Rightarrow 1 \]

\[ p(\alpha \in \emptyset) \to 0 \]
\[ P(X \geq 1) \rightarrow 0 \]

If \( \frac{p}{t} \rightarrow 0 \), then

\[ \frac{E(X)}{t} = E(X) \rightarrow 0 \]
\[ p \left( \frac{x}{t} \rightarrow 1 \right) \]

\[ p \left( \frac{\rho}{\delta} \rightarrow 0 \right) \]
\[ \sigma^2 = E((X - \mu)^2) \]

\[ = E\left(X^2 + \mu^2 - 2X\mu\right) \]

\[ = E(X^2) + \mu^2 - 2E(X)\mu \]

\[ = E(X^2) + \mu^2 - 2\mu^2 \]

\[ = E(X^2) - \mu^2 \]
\[ P \left( |X - \mu| > \lambda \right) \leq \frac{\mathbb{E}((X-\mu)^2)}{\lambda^2} \]
\[ \sum (H') \leq \frac{|E(H)|}{|H|} \]