

$$\begin{aligned}
&\Theta(n) \\
&\mathcal{O}(n) \\
&\mathcal{O}(n/B^{2/3} + \textit{sort}(n) \cdot \log(B)) \\
&\Omega(n/B^{1/2} + \textit{sort}(n)) \\
&G = (V, E) \\
&\textit{scan}(N) = \Theta(N/B) \\
&\textit{sort}(N) = \Theta((N/B) \cdot \log_{M/B}(N/B)) \\
&\textit{scan}(N) < \textit{sort}(N) \ll N \\
&L(t) := A'(t) \setminus \{L(t-1) \cup L(t-2)\} \\
&\mathcal{O}(n+m) \\
&\Theta(n+m/B) \\
&\mathcal{O}(\sum_t L(t) + \sum_t \textit{sort}(A(t))) = \mathcal{O}(n + \textit{sort}(n+m)) \\
&\mathcal{O}(\textit{sort}(n+m)) \\
&\max\{1, \sqrt{\frac{n \cdot B}{n+m}}\} \\
&1 < \mu < \mathcal{O}(\sqrt{B}) \\
&\Omega(n/\mu) \\
&\Omega(\mu) \\
&\mathbf{P}[r(v) = 0] = \mathbf{P}[r(v) = 1] = \frac{1}{2} \\
&\Delta d_i(v) = |d_{i-1}(v) - d_i(v)|
\end{aligned}$$