

Quiz: Streaming

1. The number of total hashes is km .

2pts for these explanations

Prob. of a given bit is 1 for one hash is $\frac{1}{n}$.

Prob. of one bit is not 1 for one hash is $1 - \frac{1}{n}$.

Prob. of one bit is not 1 for all hashes is $(1 - \frac{1}{n})^{km}$

\therefore Prob. of one bit is 1 by at least 1 hashing is $1 - (1 - \frac{1}{n})^{km} = 1 - e^{-\frac{km}{n}}$.

2. Streaming page 59-60.

3. Streaming page 68-70.

4. Streaming page 80.