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$$Recall(N,k,B,M,d_{max},\mu_s,\sigma_s,\mu_d,\sigma_d)=\frac{N}{k}\int_0^{x_0}\left\{\sum_{b=0}^{\frac{\mu_s^2}{\sigma_s^2}}\left[\binom{\frac{\mu_s^2}{\sigma_s^2}}{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}p(x)^{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\cdot(1-p(x))^{\frac{\mu_s^2}{\sigma_s^2}-b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\cdot\int_0^M\left(\frac{1}{\sqrt{N\cdot\int_0^{d_{max}}\left[\sum_{i=0}^{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}-1}\binom{\frac{\mu_s^2}{\sigma_s^2}}{i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}p(x)^{i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\cdot(1-p(x))^{\frac{\mu_s^2}{\sigma_s^2}-i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}+\frac{1}{2}\binom{\frac{\mu_s^2}{\sigma_s^2}}{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}p(x)^{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\cdot(1-p(x))^{\frac{\mu_s^2}{\sigma_s^2}-b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}-\left(\sum_{i=0}^{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}-1}\binom{\frac{\mu_s^2}{\sigma_s^2}}{i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}p(x)^{i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\cdot(1-p(x))^{\frac{\mu_s^2}{\sigma_s^2}-i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}+\frac{1}{2}\binom{\frac{\mu_s^2}{\sigma_s^2}}{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}p(x)^{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\cdot(1-p(x))^{\frac{\mu_s^2}{\sigma_s^2}-b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\right)^2\right]\cdot f(x)dx}\cdot\sqrt{2\cdot\pi}}\cdot e^{-\frac{\left[y-\left(N\cdot\int_0^{d_{max}}\left(\sum_{i=0}^{b-1}\binom{\frac{\mu_s^2}{\sigma_s^2}}{i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}p(x)^{i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\cdot(1-p(x))^{\frac{\mu_s^2}{\sigma_s^2}-i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}+\frac{1}{2}\binom{\frac{\mu_s^2}{\sigma_s^2}}{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}p(x)^{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\cdot(1-p(x))^{\frac{\mu_s^2}{\sigma_s^2}-b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\right)\cdot f(x)dx\right)\right]^2}{2\cdot\left(N\cdot\int_0^{d_{max}}\left[\sum_{i=0}^{b-1}\binom{\frac{\mu_s^2}{\sigma_s^2}}{i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}p(x)^{i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\cdot(1-p(x))^{\frac{\mu_s^2}{\sigma_s^2}-i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}+\frac{1}{2}\binom{\frac{\mu_s^2}{\sigma_s^2}}{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}p(x)^{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\cdot(1-p(x))^{\frac{\mu_s^2}{\sigma_s^2}-b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}-\left(\sum_{i=0}^{b-1}\binom{\frac{\mu_s^2}{\sigma_s^2}}{i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}p(x)^{i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\cdot(1-p(x))^{\frac{\mu_s^2}{\sigma_s^2}-i\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}+\frac{1}{2}\binom{\frac{\mu_s^2}{\sigma_s^2}}{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}p(x)^{b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\cdot(1-p(x))^{\frac{\mu_s^2}{\sigma_s^2}-b\cdot\frac{\mu_s^2}{B\cdot\sigma_s^2}}\right)^2\right]\cdot f(x)dx\right)}}\right)dy\right]\cdot f(x)\right\}dx$$

where

$$f(x)=\frac{1}{x\cdot\sigma_d\cdot\sqrt{2\pi}}e^{-\frac{(lnx-\mu_d)^2}{2\cdot\sigma_d^2}}$$

x_0 is solved from equation

$$k=N\cdot\int_0^{x_0}\frac{1}{x\cdot\sigma_d\cdot\sqrt{2\pi}}e^{-\frac{(lnx-\mu_d)^2}{2\cdot\sigma_d^2}}dx$$

and probability function $p(x)$ is learned on data.