$$\sigma^2 = \frac{\sum (x_i - \mu)^2}{n} \qquad \mu = \frac{\sum x_i}{n}$$

$x_i = 0.01 x_i^*$, for all i

$$\mu' = \frac{\sum 0.01 x_i}{n} = 0.01 \frac{\sum x_i}{n} = 0.01 \mu$$

$$\sigma'^2 = \frac{\sum (0.01 x_i - 0.01 \mu)^2}{n}$$

$$\sigma'^2 = 0.01^2 \frac{\sum (x_i - \mu)^2}{n} = 0.01^2 \cdot \sigma^2$$

$$\boxed{\sigma' = 0.01\sigma}$$

~~"randn로 표준편차.pdf"~~

~~SoftMax 개선 Version check!~~