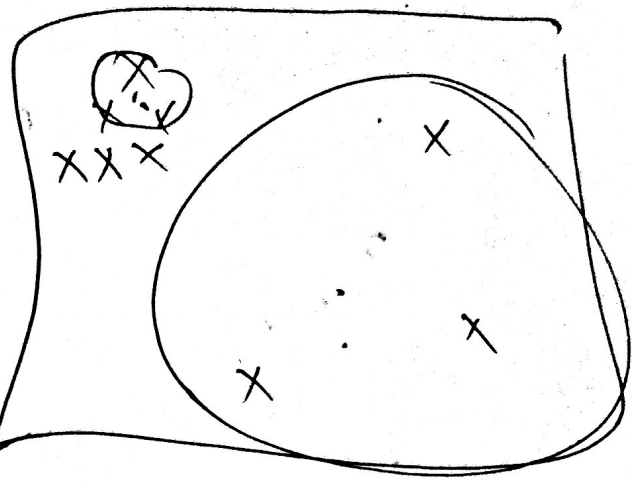
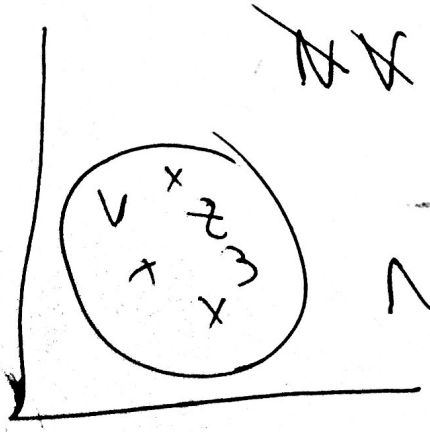
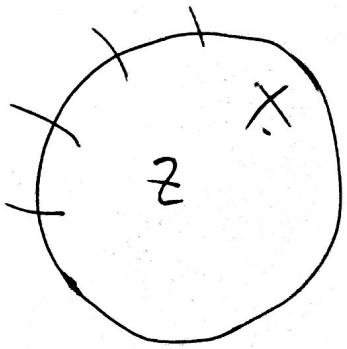


$$\frac{\frac{k_1}{N_1 V} \cdot \frac{N_1}{N}}{\frac{k}{NV}} = \frac{k_1}{k}$$

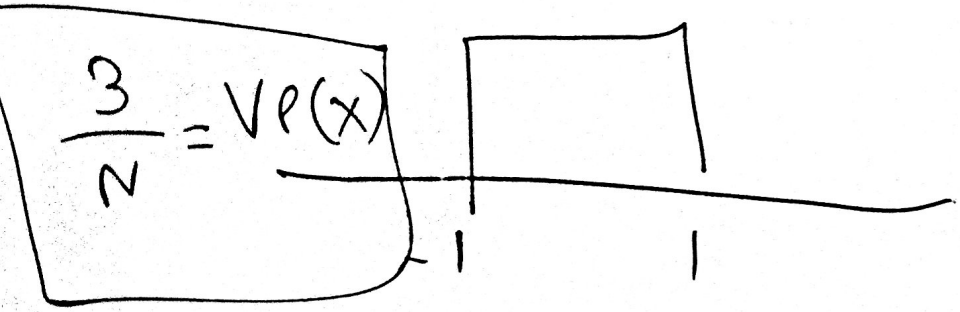


$$\boxed{\int \rho(x) = \frac{3}{N}}$$

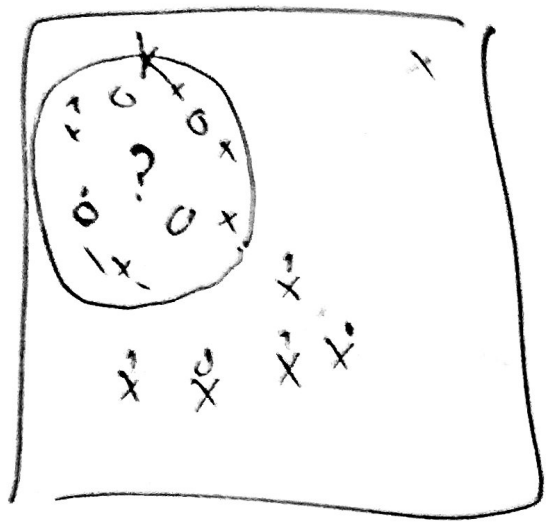


$$\int_R \rho(x) = 1$$

$$\frac{3}{N} = V\rho(x)$$



R



$V \, p(x/y=1)$

$= \frac{k_1}{N_1}$

$p(x)$ $\int_R p(x)\,dx = V \cdot p(x) = \frac{k}{N}$

$V \, p(x/y=1) = \frac{k_1}{N_1}$