INSEA

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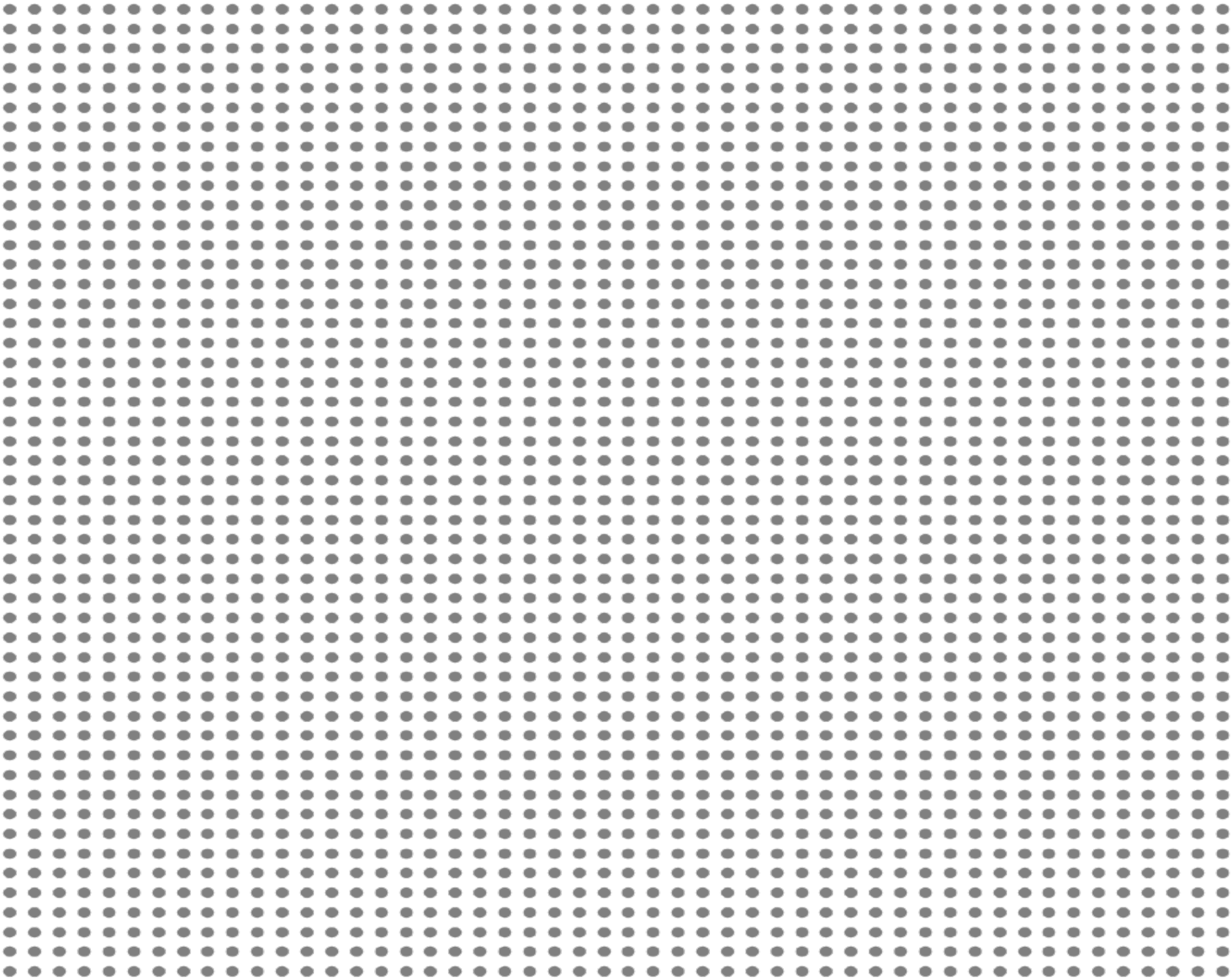
Motivation

Nous cherchons la probabilité d’être un **génie** parmi les **tests positifs** :

Bayes application



99% | G = 0

1% | G = 1

5%

T = 1

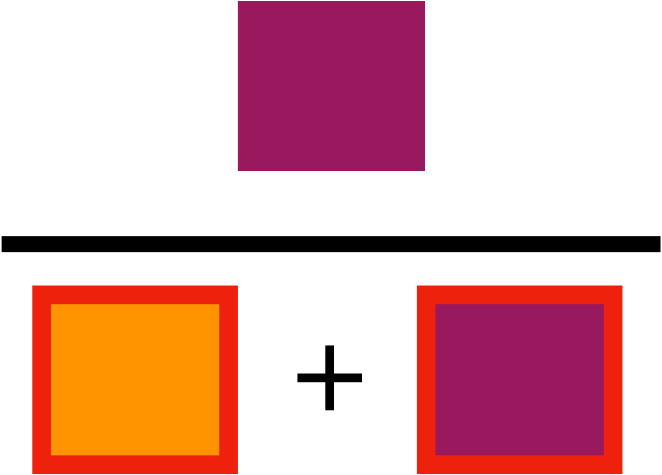
95%	$T = 1$

95%

$T = 0$

5%

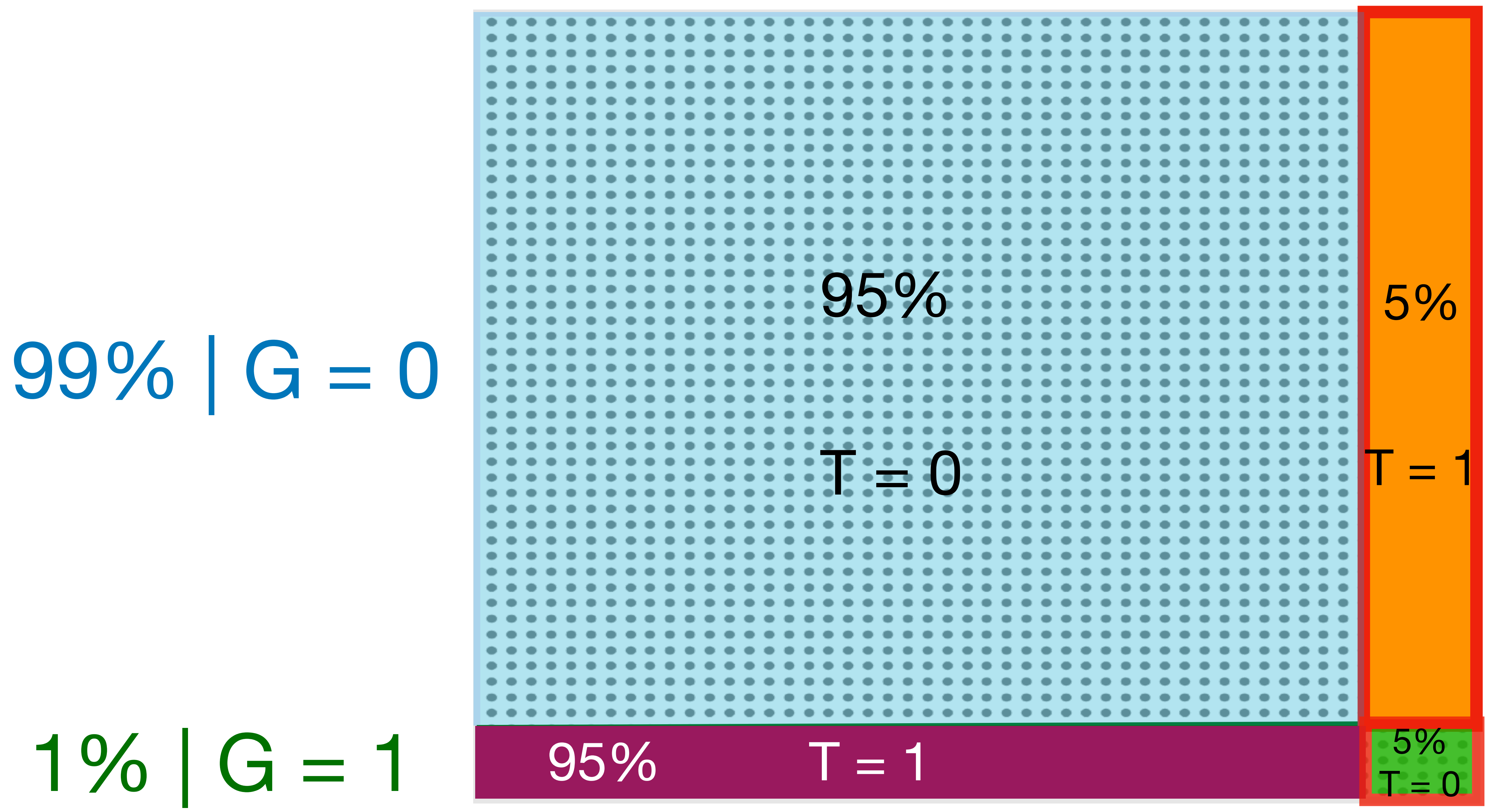
T = 0



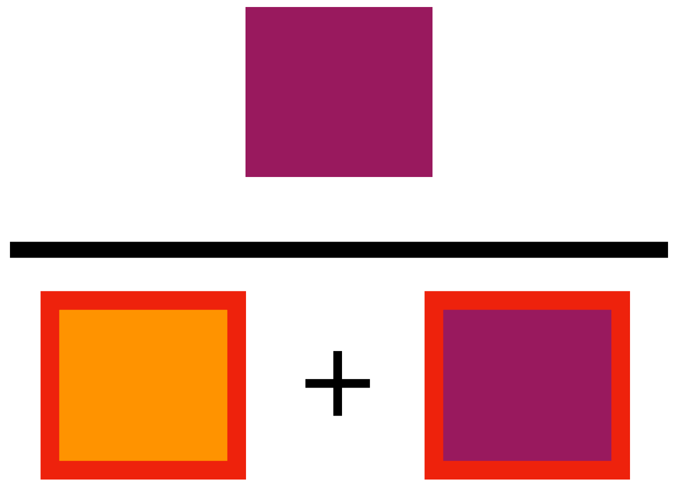
$$= \frac{0.01 \times 0.95}{0.99 \times 0.05 + 0.01 \times 0.95} \approx 0.161$$

Formellement, avec Bayes + Probabilités totales:

$$\mathbb{P}(G=1|T=1) = \frac{\mathbb{P}(T=1|G=1)\mathbb{P}(G=1)}{\mathbb{P}(T=1)} = \frac{\mathbb{P}(T=1|G=1)\mathbb{P}(G=1)}{\mathbb{P}(T=1|G=1)\mathbb{P}(G=1)+\mathbb{P}(T=1|G=0)\mathbb{P}(G=0)}$$



Nous cherchons la probabilité d'être un **génie** parmi les **tests positifs** :



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