Les cartes

① a) $1/4$ b) $1/13$ c) $3/13$ d) $3/4$ e) $1/26$

② a) $\frac{13}{52} \times \frac{12}{51}$ ou $\frac{C_{13}^2}{C_{52}^2} \simeq 0,0588$

b) $\frac{13}{52} \times \frac{13}{51} \times 2$ ou $\frac{13 \times 13}{C_{52}^2} \simeq 0,1275$

③ a) $\frac{C_{13}^5}{C_{52}^5} = \frac{1287}{2598960} \simeq 0,000495$

b) $\frac{C_4^2 \cdot C_{48}^3}{C_{52}^5} = \frac{6 \times 17296}{C_{52}^5} \simeq 0,03993$ (2 valets et 3 "non-valets")

c) $\frac{C_4^4 \times C_{48}^1}{C_{52}^5} = \frac{1 \times 48}{C_{52}^5} \simeq 0,00001847$ (4 as et 1 "non-as")

d) $1 - \frac{C_{48}^5}{C_{52}^5} = 1 - \frac{1712304}{C_{52}^5} \simeq 0,34116$ (Contraire de "aucune Dame")

e) $\frac{C_4^3 \times C_4^2}{C_{52}^5} = \frac{24}{C_{52}^5} \simeq 0,000009234$

f) $\frac{C_4^1 \times C_{48}^4}{C_{52}^5} = \frac{4 \times 194580}{C_{52}^5} \simeq 0,29947$ (1 As et 4 "non-As")

g) $\frac{C_4^1 \times C_4^2 \times C_{44}^2}{C_{52}^5} = \frac{4 \times 6 \times 946}{C_{52}^5} \simeq 0,008736$

(1 valet, 2 rois et 2 cartes ni "valet" ni "roi").

④ $\frac{1}{C_{52}^{10}} \simeq 6,32 \cdot 10^{-11}$