CHAMB. 2017

A

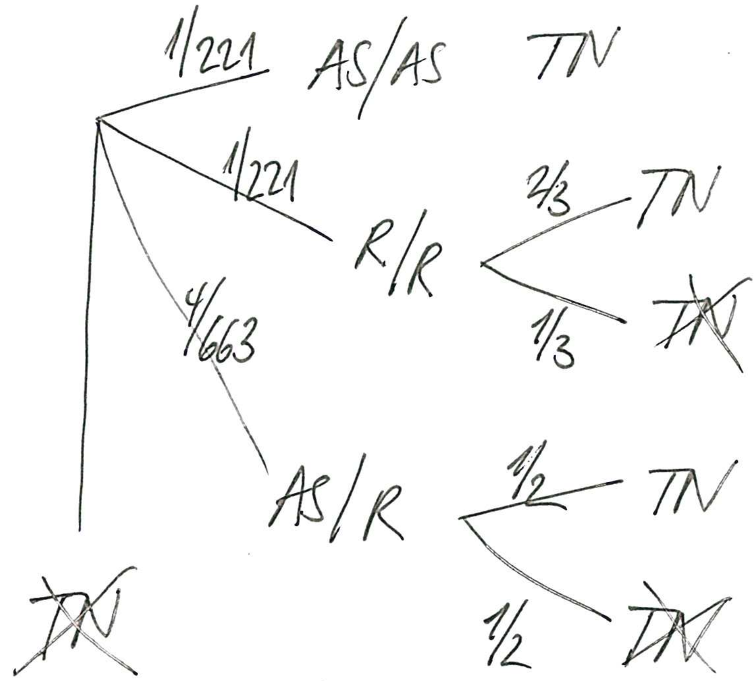
C A I B L N
C A
A
A

$$\frac{10!}{2!\,4!}$$

B

a) $\dfrac{C_2^4}{C_2^{52}} = \dfrac{6}{1326} = \dfrac{1}{221}$

b)



$$p = \frac{1}{221} + \frac{2}{3}\cdot\frac{1}{221} + \frac{1}{2}\cdot\frac{8}{663} = \frac{9}{663} \simeq 1{,}06\%$$

$$p(AS/R) = \frac{C_1^4\cdot C_1^4}{C_2^{52}} = \frac{8}{663}$$

c) $p\left((AS/AS)/TN\right) = \dfrac{1/221}{9/663} = \dfrac{3}{9} \simeq 33{,}3\%$

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C

Choix du type de carte : 2, 3, ..., V, D, R, AS → C_1^{13}

a) $p(\text{1 paire}) = \dfrac{C_1^{13} \cdot C_2^4}{C_2^{52}} = \dfrac{13 \cdot 6}{1326} = \dfrac{1}{17}$

b) $\left[C_2^4 \cdot \left(\frac{1}{17}\right)^2 \cdot \left(\frac{16}{17}\right)^2 \right] \cdot \left(\frac{16}{17}\right)^3$

$= 6 \cdot \left(\frac{1}{17}\right)^2 \cdot \left(\frac{16}{17}\right)^5 \simeq 0{,}0153$

$\simeq 1{,}53\,\%$