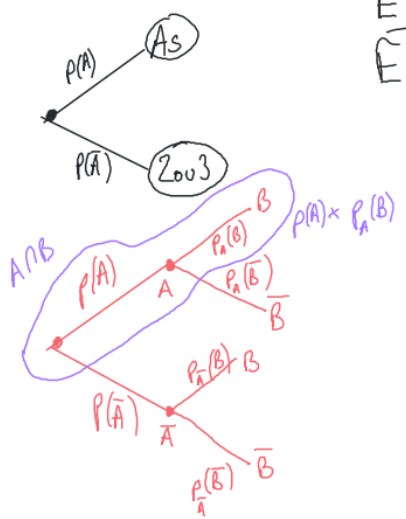
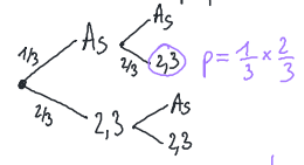


As 2 3



Ev. A : tirer l'As
Ev B : tirer 2 ou 3

Cas 1 : on remet la carte dans le paquet

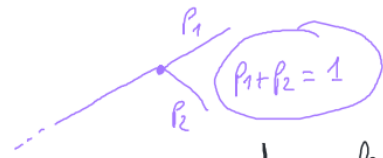


A et B sont indépendants
P(B) ne dépend pas de A.

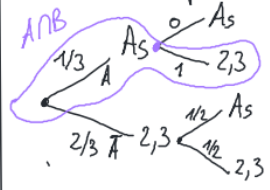
$$P_A(B) = P(B)$$

$$P(A \cap B) = P(A) \times P(B)$$

! indépendants



on ne remet pas la carte :



$$P_A(B) = 1$$

$$P(B) = \frac{2}{3}$$

$$P(A \cap B) = \frac{1}{3} \times 1 = \frac{1}{3}$$

$$P_A(B) \neq P(B)$$

! Cas général

$$P(A \cap B) = P_A(B) \times P(A) \quad \text{proba conditionnelle.}$$

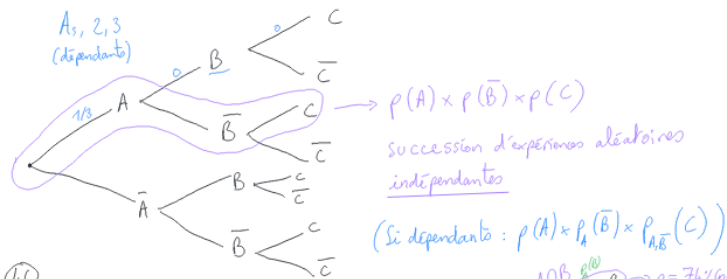
Rq: $P(A) \times P(B) = \frac{1}{3} \times \frac{2}{3} = \frac{2}{9} \neq \frac{1}{3}$

(51)

	L	L̄	tot
F			
F̄			
tot	80 × 0,65 = 52	28	80

effectif : nombre

proba : [0;1]



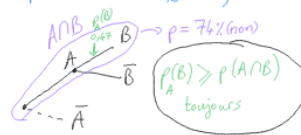
46

a) $p_A(B) = 0,47$ $p(A \cap B) = 0,74$

$$p(A) = \frac{p(A \cap B)}{p_A(B)} = \frac{0,74}{0,47} \simeq 1,57 > 1 \text{ impossible}$$

b) $p_A(B) = 0,74$ $p(A \cap B) = 0,47$

c) $p_A(B) \geq p(A \cap B)$



47 1) $p(A) = 0,7$ $p(B) = 0,8$ $p(A \cap B) = 0,4$

$$p_A(B) = \frac{p(A \cap B)}{p(A)} = \frac{0,4}{0,7} \simeq 0,57$$

$$p_B(A) = \frac{p(B \cap A)}{p(B)} = \frac{p(A \cap B)}{p(B)} = \frac{0,4}{0,8} = 0,5$$

2) $p(A \cup B) = p(A) + p(B) - p(A \cap B)$

$$p(A \cup B) = 0,7 + 0,8 - 0,4$$

$$p(A \cup B) = 1,1 > 1 \text{ impossible}$$

$$p(A \cup B) = 1 = 0,7 + 0,8 - p(A \cap B)$$

$$p(A \cap B) = 0,7 + 0,8 - 1$$

$$p(A \cap B) = 0,5 \text{ Proposition: changer } 0,4 \text{ en } 0,5.$$

