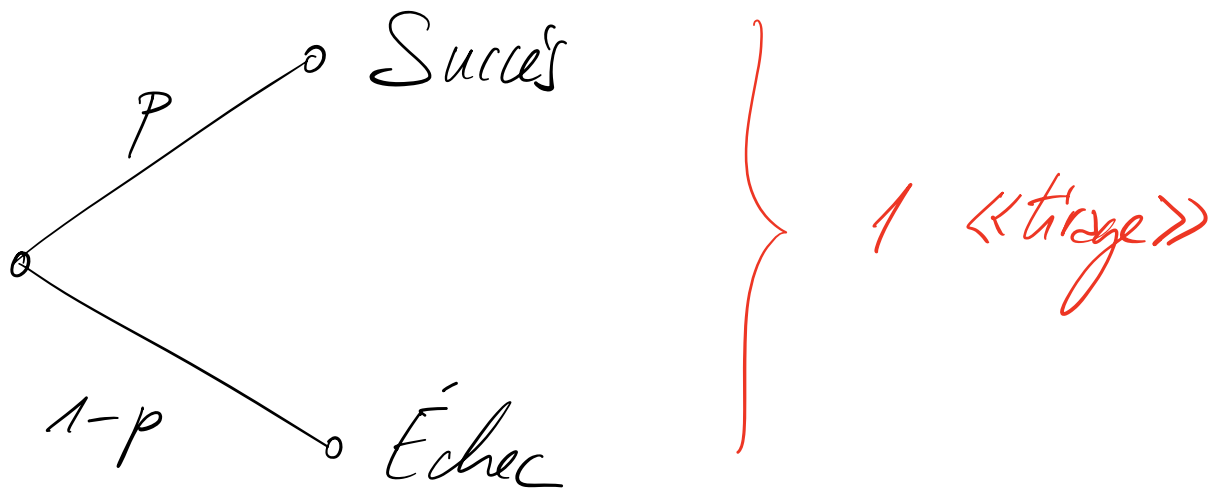


Processus binomial

$$0 \leq p \leq 1$$

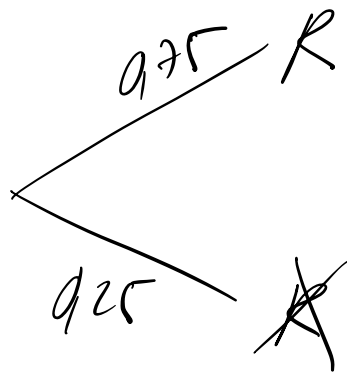


On répète le «tirage» n fois

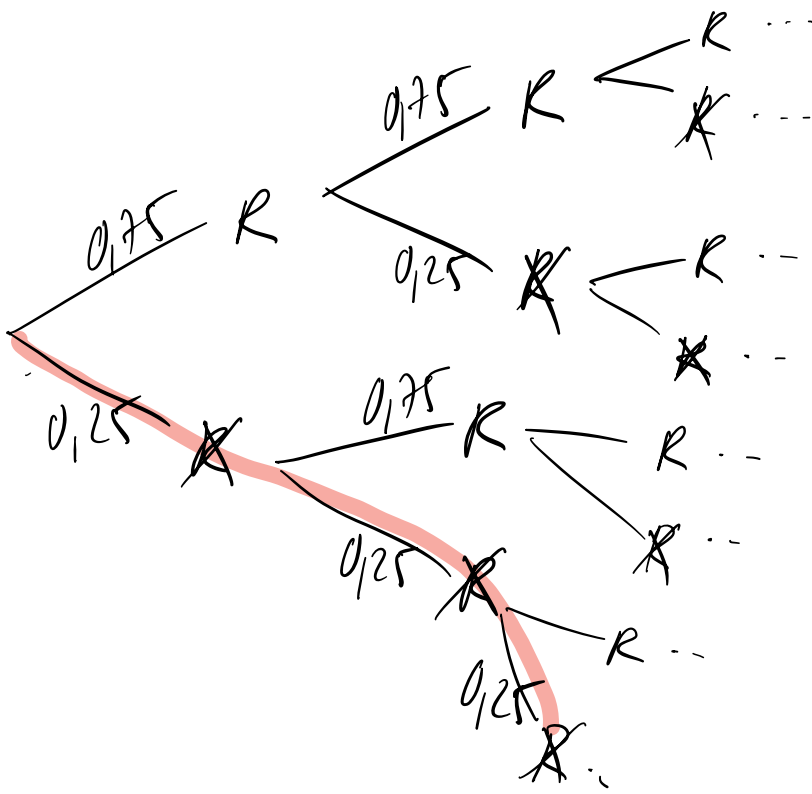
$$p(k \text{ succès}) = C_n^k \cdot p^k \cdot (1-p)^{n-k}$$

Exemple (4.4.3) :

6 tirages :



$$p(4 R) = C_6^4 \cdot 0,75^4 \cdot 0,25^2$$



Combien d'appels pour que $p(\text{aucune R}) < 0,1$

$$p(\text{aucune R}) = 0,25^n$$

$$0,25^n = 0,1$$

2 fois

$$n = \log_{0,25} 0,1 = \frac{\ln 0,1}{\ln 0,25} \approx 1,6$$

$$0,25^n = 0,01$$

4 fois

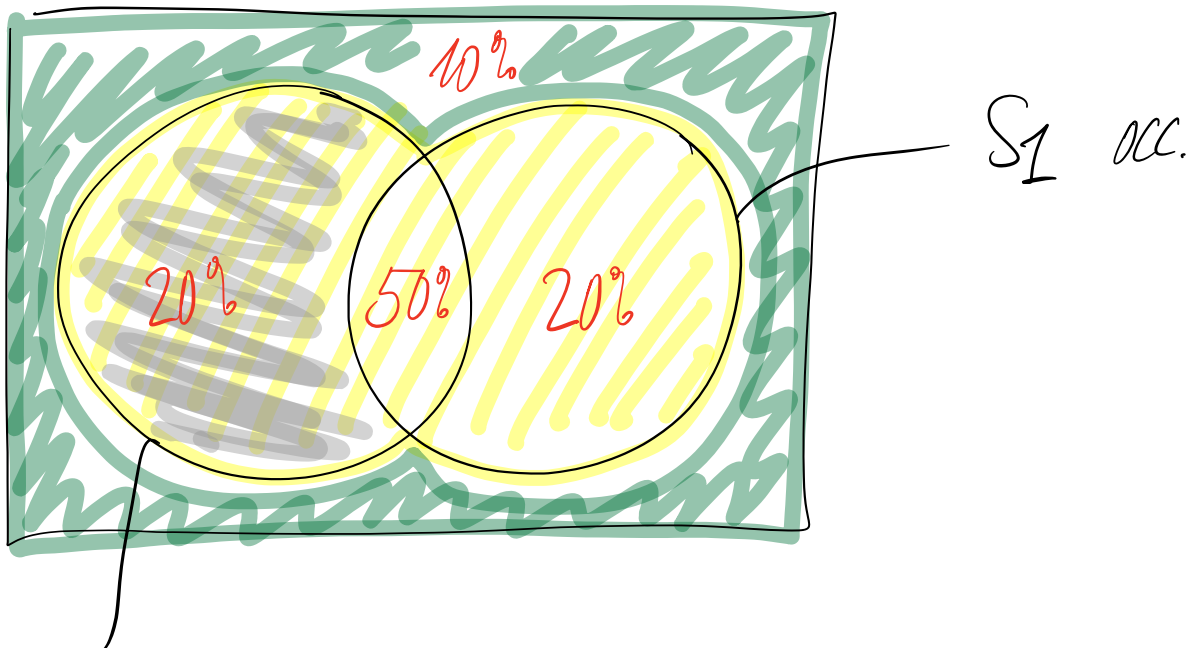
11	12	13	14	15	16
21	22	23	24	25	26
31	32	33	34	35	36
41	42	43	44	45	46
51	52	53	54	55	56
61	62	63	64	65	66

$$P(A) = \frac{5}{36}$$

$$P(A|B) = \frac{P(A \cap B)}{P(B)}$$

$$= \frac{4/36}{30/36}$$

$$= \frac{4}{30} = \frac{2}{15}$$



S_2 occ.