

# COMPITO "PROBABILITY 1"

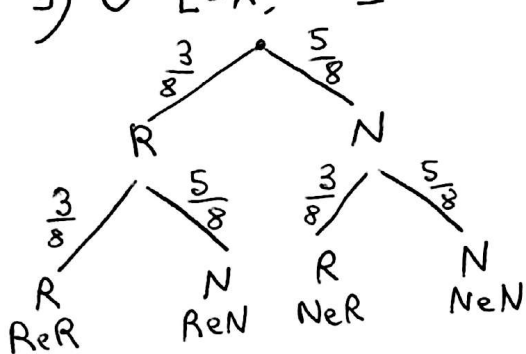
- 1) LANCIO DADO  $P(>2) = \frac{4}{6}$   $P(\leq 5) = \frac{5}{6}$   $P(\text{DISPARI}) = \frac{3}{6}$
- 2) Mazzo CARTE da 52  $P(F) = \frac{12}{52}$   $P(\text{Nera}) = \frac{26}{52}$   $P(R) = \frac{4}{52}$   $P[\text{FIGURA da CUPRI}] = \frac{3}{52}$
- 3)  $U = [7R, 4V, 3N]$   $P(R) = \frac{7}{14}$   $P(V) = \frac{4}{14}$   $P(N) = \frac{3}{14}$   $P(G) = \frac{0}{14} = 0$
- 4) LANCIO di 2 DADI = VISUALIZZARE RAPP. TABULARE  
 $P(5) = \frac{4}{36}$   $P(4) = \frac{6}{36}$   $P(N < 3) = \frac{1}{36}$   $P(\text{PARI}) = \frac{18}{36}$

REGOLA SOMMA  $P(A \cup B) = P(A) + P(B) - P(\text{ENTRambi})$

- 5) LANCIO DADO  $P(<2 \cup >3) = \frac{1+3}{6} = \frac{4}{6}$  ;  $P(\text{Disp} \cup >3) = \frac{3+3-1}{6} = \frac{5}{6}$
- 6) CARTA :  $P(\text{Figure} \cup N) = \frac{12+26-6}{52} = \frac{32}{52}$  ;  $P(R \cup \text{Figure(rosa)}) = \frac{4+3-1}{52} = \frac{6}{52}$
- 7)  $U = [7R; 4V; 3N]$   $P(R \cup V) = \frac{7+4}{14} = \frac{11}{14}$  ;  $P(N \cup V) = \frac{3+4}{14} = \frac{7}{14}$
- 8) LANCIO 2 DADI  $P(5 \cup 7) = \frac{4+6}{36} = \frac{10}{36}$  ;  $P(<3 \cup \text{PARI}) = \frac{1+18-1}{36} = \frac{18}{36}$

REGOLA PRODOTTO  $P(A \cap B) = P(A) \cdot P(B)$

9)  $U = [3R, 5N]$  ESTRAZIONE 2 PALINE CON REIMBUSSOLAMENTO



$$P(R \cap R) = \frac{3}{8} \cdot \frac{3}{8} = \frac{9}{64}$$

$$P(R \cap N) = \frac{3}{8} \cdot \frac{5}{8} = \frac{15}{64}$$

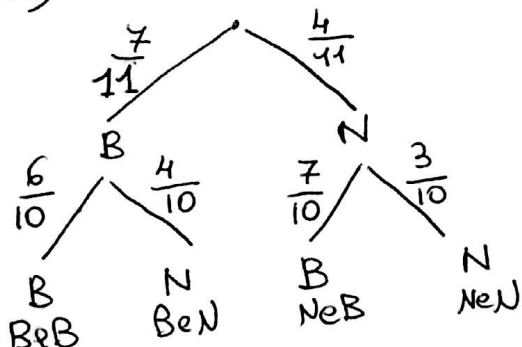
$$P(R \cap R) + P(N \cap N) = \frac{3}{8} \cdot \frac{3}{8} + \frac{5}{8} \cdot \frac{5}{8} = \frac{9}{64} + \frac{25}{64} = \frac{34}{64}$$

= stesso colore

$$P(\text{ALMENO 1 N}) = 1 - P(\text{MAI N}) = 1 - \frac{9}{64} = \frac{55}{64}$$

( $\frac{64-9}{64}$ )

10)  $U = [7B; 4N]$  ESTRAZIONE 2 PALINE SENZA REIMBUSSOLAMENTO



$$P(B \cap B) = \frac{7}{11} \cdot \frac{6}{10} = \frac{42}{110}$$

$$P(B \cap N) = \frac{7}{11} \cdot \frac{4}{10} = \frac{28}{110}$$

$$P(\text{colore diverso}) = P(B \cap N) + P(N \cap B) = \frac{7}{11} \cdot \frac{4}{10} + \frac{4}{11} \cdot \frac{7}{10} = \frac{28}{110} + \frac{28}{110} = \frac{56}{110}$$

$$P(\text{Almeno 1 N}) = 1 - P(\text{MAI N}) = 1 - \frac{42}{110} = \frac{68}{110}$$

( $\frac{110-42}{110}$ )