

• 26 p 71: 2 br, 3 bb, 5 br - 10 b

$$\text{Tirage: } \frac{Nb}{Nb_{\text{tot}}} = P(b)$$

$$\text{br: } \frac{2}{10}, \text{ bb: } \frac{3}{10}, \text{ br: } \frac{5}{10} = \frac{1}{2} - 1 \text{ tirage}$$

$$\text{br: } \frac{1}{9}, \text{ bb: } \frac{2}{9}, \text{ br: } \frac{4}{9} - 2 \text{ tirage}$$

$$\frac{\frac{2}{10} \cdot \frac{1}{9} + \frac{3}{10} \cdot \frac{2}{9} + \frac{5}{10} \cdot \frac{4}{9}}{\sqrt{V}} = \frac{BB}{RR} - \text{tot}$$

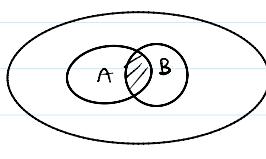
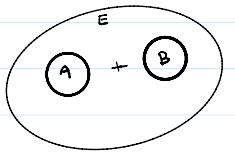
$$\frac{2}{90} + \frac{6}{90} + \frac{20}{90} = \frac{28}{90} = \frac{7 \times 2 \times 2}{5 \times 2 \times 9} = \frac{14}{45} \approx 0,31 \text{ soit } 31\%$$

• Proba:

\bar{A} = inverse de A

• $P(\bar{A}) = 1 - P(A)$ - si on sait pas calculer $P(\bar{A})$ on peut de $P(A)$

• A - intersection - et
U - union - ou



$$P(A \cup B) = P(A) + P(B)$$

$$P(A) + P(B) - P(A \cap B) = P(A \cup B)$$

• A = 1 dame dans 32 cartes

$$P(A) = \frac{4}{32} = \frac{1}{8}$$

• B = carte noire

$$P(B) = \frac{8+8}{32} = \frac{1}{2}$$

• C = 10 noir 10 p 10 t

$$P(C) = \frac{2}{32} = \frac{1}{16}$$

• D = trefle

$$P(D) = \frac{1}{4} - \frac{1 \text{ coeur}}{4 \text{ coeurs}}$$

• E = tete

$$P(E) = \frac{3 \times 4}{32} = \frac{12}{32} = \frac{3}{8}$$

• F = \bar{E} = pas de tete

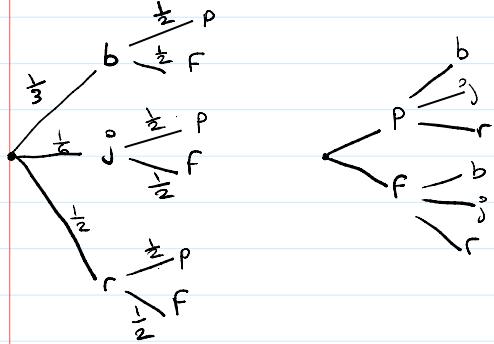
$$P(F) = 1 - P(E) = 1 - \frac{3}{8} = \frac{5}{8}$$

• Ex piece et coeurs:

$$P(\text{P et P}) = \frac{1}{2}$$

• incompatible et contraire - complémentaire

$$\begin{aligned} p(A) &= \frac{1}{6}; \quad p(B) = p(b \cup r) = \frac{1}{3} + \frac{1}{2} = \frac{5}{6} \\ p(A) + p(B) &= \frac{1}{6} + \frac{5}{6} = 1 \end{aligned}$$



$$\begin{aligned} p(F) &= p(b \cap F) + p(j \cap F) + p(r \cap F) \\ &= p(b) \times p(F) + p(j) \times p(F) + p(r) \times p(F) \\ &= p(F) \cdot (p(b) + p(j) + p(r)) \\ &= p(F) \cdot 1 \\ &= p(F) = \frac{1}{2} \end{aligned}$$

$$\begin{aligned} p(\overline{r \cap F}) &= 1 - p(r \cap F) \\ &= 1 - p(r) \times p(F) \\ &= 1 - \frac{1}{2} \cdot \frac{1}{2} \\ &= 1 - \frac{1}{4} = \frac{3}{4} \text{ soit } 75\% \end{aligned}$$

Ex 37 p 73:

$$E = 59 + 57 + 8 + 6 + 11 + 15 + 7 + 5 = 70 + 20 + 28 + 50 = 168$$

$$\begin{aligned} p(A+) &= \frac{59}{168} \approx 0,35 & p(A-) &= \frac{57}{168} \approx 0,34 & p(B+) &= \frac{8}{168} \approx 0,05 & p(AB+) &= \frac{6}{168} = 0,04 \\ &\downarrow 35\% & &\downarrow 34\% & &\downarrow 5\% & &\downarrow 4\% \end{aligned}$$

• Fonc^o:

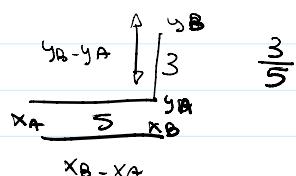
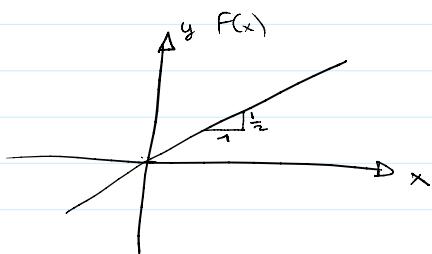
$$x \mapsto F(x)$$

$$x \mapsto 2 \times km + 5 \in$$

$2 \times km$

- b = ordonnée à l'origine $= F(0)$

$$\cdot a = \frac{y_B - y_A}{x_B - x_A} \text{ - coeff directeur}$$



Kg

$$f(0) = ax + b = a \cdot 0 + b = b$$

$$\cdot M1: \quad x \mapsto 2 \cdot x$$

$$\cdot M3: \quad 10 \text{ Km} = 50 \in \quad 20 \text{ Km} = 100 \in$$

$\cdot M1:$ $x \mapsto 2 \cdot x$ $\cdot M3:$ $10 \text{ Km} = 50 \text{ €}$ $20 \text{ Km} = 100 \text{ €}$
 $\cdot M2:$ $x \mapsto \underline{50} + \underline{3x}$ $\frac{50}{10} = \frac{5}{1}$ $F(x) = 5x + b$
 km
 $50 = 5 \cdot 10 + b$
 $50 = 50 + b$
 $b = 0$

- calcul image: $F(5) = A.N = \text{application numérique}$
- calcul antécédent:

$\cdot ME:$ $2x \xrightarrow{?} x$ $\cdot M1:$ lecture graph

$$F^{-1}(x) = \frac{x}{2}$$

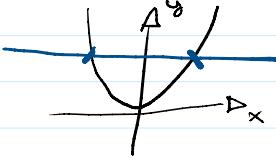
$$50 + 3x \mapsto x$$

$$g^{-1}(x) = \frac{x - 50}{3}$$

• équa^o: $\underline{ax} + \underline{b} = \underline{cx} + \underline{d} \Leftrightarrow \frac{(a-c)x}{a-c} = \frac{d-b}{a-c} \Leftrightarrow x = \frac{F}{e}$ $S = \left\{ \frac{F}{e} \right\}$ si e est frac^o
 $a \neq c$
 alors $x = F \times \frac{1}{e}$

① sépare^o

② tracer x



$\cdot M2:$ $F(x) = 10$

$$50 + 3x = 10$$

$$\Leftrightarrow 3x = -40$$

$$\Leftrightarrow x = -\frac{40}{3}$$