

Exercice 1

LA CORRECTION ET POS
DES QUESTIONS

1) a) $P(\bar{A}) = 1 - P(A)$

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

2) a) ~~$P(\bar{A}) = 1 - P(A) = 1 \text{ chance sur } 2$~~

b)

///	Fille	Garçon	Total
Anglais	9	8	17
Allemand	7	8	15
Total	16	16	32

Exercice 2

1) b) $E(X) = \cancel{x_1} \times P_1 + x_2 \times P_2 + x_3 \times P_3$

a) ~~$E(X) = E-1$~~

2) a) ~~$1/4$~~

Exercice 1. 18,5/20

1. a) $p(\bar{A}) = 1 - p(A)$ ✓ 0,5/0,5

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

2. a) $p(\bar{A}) = \frac{15}{16}$ ✓ 1/1

b) ①

	garçons	filles	Total
Anglais	8	9	17
Allemand	8	7	15
Total	16	16	32

② $p(A \cap F) = \frac{9}{32}$ ✓ 0,28/1,5

③ $p(F) = \frac{16}{32}$ 1/1

$p(\overline{A \cap F}) = \frac{23}{32}$ ← on fait les calculs?

$p(\bar{F}) = \frac{16}{32}$

④ $p(A \cap \bar{F}) = \frac{8}{32}$ ✓ 1/1

$p(\bar{A} \cap F) = \frac{7}{32}$ ✓

⑤ $p(A \cup F) = \frac{21}{32}$ ← on fait les calculs?

$p(\bar{A} \cap \bar{F}) = \frac{8}{32}$ 0,25/1,5

⑥ $p(A) = \frac{14}{32}$

$p(\bar{A}) = \frac{15}{32}$ 1/1

$$a) P(A) = \frac{1}{2}$$

2) i:

	Angkor	Allemard	Total
Fille	9	7	16
Garçon	8	8	16
Total	17	15	32

ii: $P(A \cap F) = \frac{9}{32}$ ✓

$$P(\overline{A} \cap F) = \frac{7}{32}$$

iii: $P(A \cap \overline{F}) = \frac{8}{32}$ ✓

$$P(\overline{A} \cap \overline{F}) = \frac{7}{32}$$

iv: $P(A \cup F) = \frac{24}{32}$

$$P(\overline{A} \cup \overline{F}) = \frac{24}{32}$$

on peut calculer
 $P(A \cup F) = P(A) + P(F) - P(A \cap F)$

$$II) P(A \cap F) = \frac{8}{32}$$

$$P(\overline{A} \cap \overline{F}) = \frac{1}{32}$$

$$III) P(A \cap \overline{F}) = \frac{8}{32}$$

$$P(\overline{A} \cap F) = \frac{17}{32}$$

$$IV) P(A \cup F) = \frac{24}{32}$$

$$P(\overline{A} \cap \overline{F}) = \frac{8}{32}$$

$$V) P(A) = \frac{17}{32}$$

$$P(\overline{A}) = \frac{5}{32}$$

$$VI) P(F) = \frac{16}{32}$$

$$P(\overline{F}) = \frac{16}{32}$$

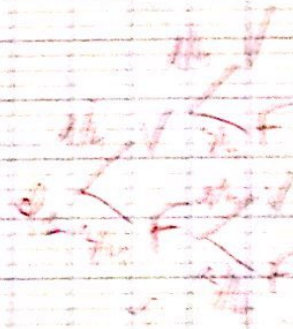
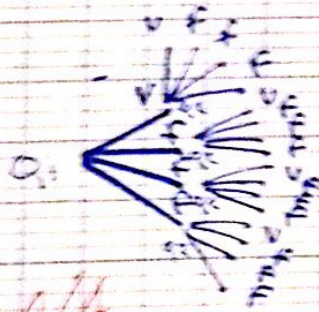
Exercise 2.

$$2. X = \{x_1, x_2, x_3, x_4\}$$

$$X: \{x_1, x_2, x_3, x_4\} \quad P(x_1) = \frac{1}{4} \quad P(x_2) = \frac{1}{4} \quad P(x_3) = \frac{1}{4} \quad P(x_4) = \frac{1}{4}$$

$$P(x_i) = \frac{1}{4} = 4 \times 0.05$$

3. a)



For sample product