

Ex 3

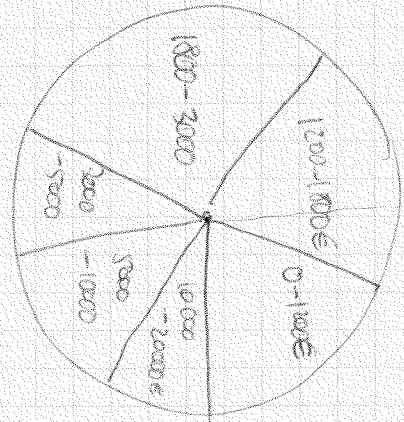
0 - 1200 €	4500	} <u>Somme</u> = 22100.
1200 - 1800 €	5200	
1800 - 3000 €	5000	
3000 - 5000 €	2000	
5000 - 10000 €	3400	
10000 € - 20.000 €	1300	

publie dans Revue

Revenus	0 - 1200	1200 - 1800	1800 - 3000	3000 - 5000	5000 - 10000	10000 - 20000
eff.	4500	5200	5000	2000	3400	1300
f_i	0,204	0,235	0,226	0,122	0,154	0,059
F_i (cumulés)	0,204	0,439	0,665	0,787	0,941	1,000

$0,204 \times 360^\circ \approx 73,4^\circ$
 $0,235 \times 360 \approx 84,6^\circ$ etc.

Construit



Histogramme $h_1 = 1200 - 0 = 1200$, $h_i = \frac{n_i}{L_i}$

$h_1 = \frac{4500}{1200} \approx 3,75$
 $h_2 = \frac{5200}{1800 - 1200} = \frac{5200}{600} = 8,67$

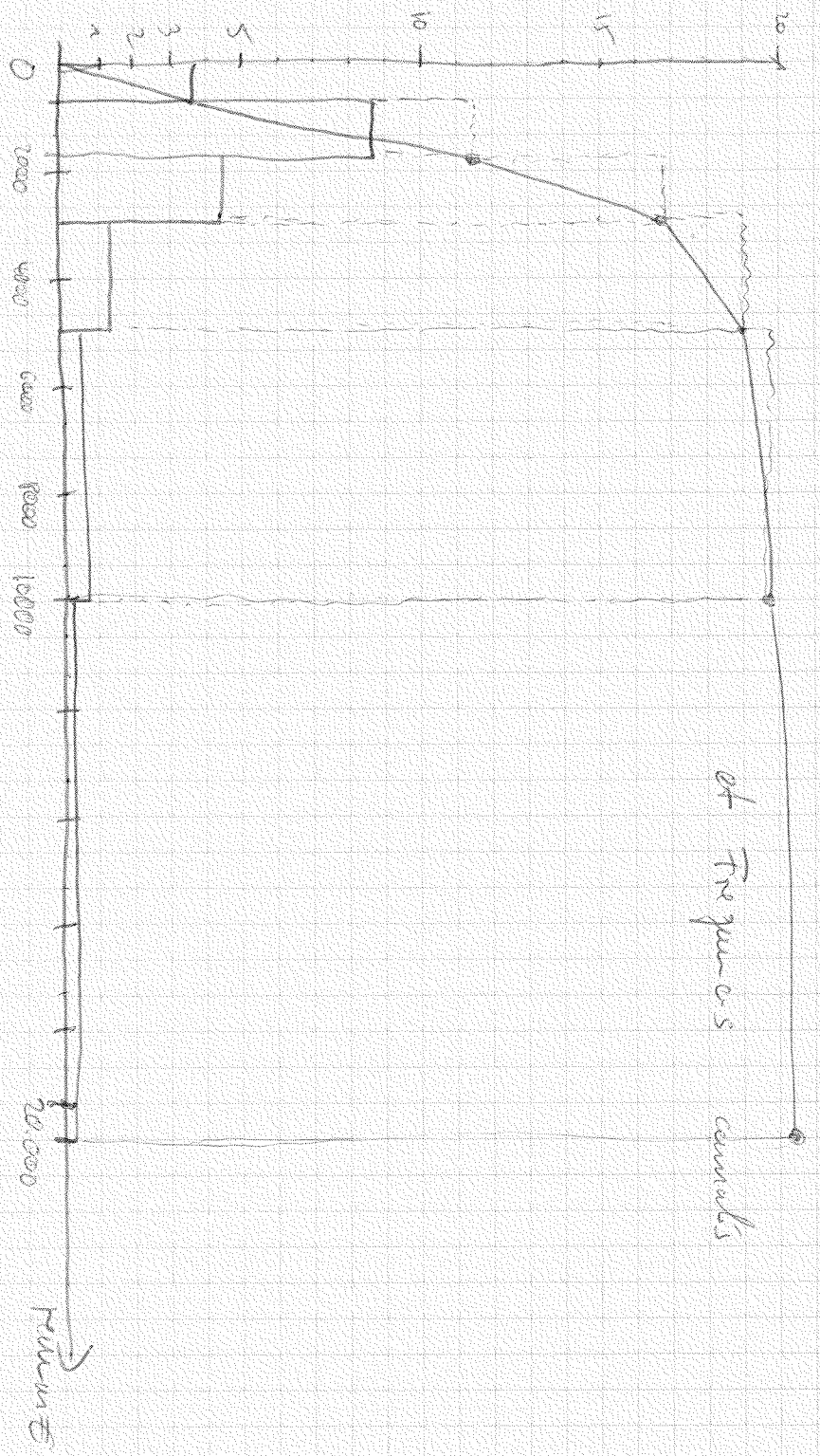
$$L_3 = \frac{5000}{3000 - 1800} = \frac{5000}{1200} \approx 4.17$$

$$L_4 = \frac{2700}{5000 - 3000} = \frac{2700}{2000} \approx 1.35$$

$$L_5 = \frac{3400}{10000 - 5000} \approx 0.68$$

$$L_6 = \frac{1300}{20000 - 10000} \approx 0.13$$

(or 18 feet
L. 20,000 ft)



histogram number.

$Q_{180\%}^{25\%}$ with 0,204 of 0,439 (freq. cumuls).

$$\approx \frac{25\% - 20,4\%}{43,9\% - 20,4\%} = \frac{q_{25} - 1200}{1800 - 1200}$$

$$\Leftrightarrow q_{25\%} = 1317,45 \text{ € (calculated sample)}$$

$Q_{180\%}^{50\%}$ of with 0,439 of 0,665.

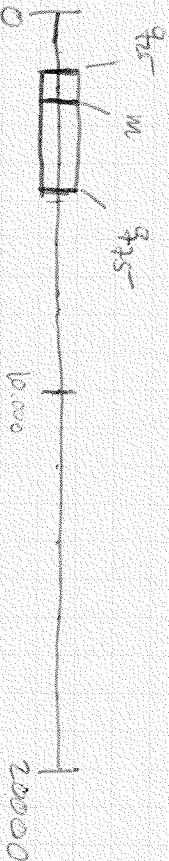
$$\text{done} \quad \frac{50\% - 43,9\%}{66,5\% - 43,9\%} = \frac{q_{50} - 1800}{3000 - 1800}$$

$$\Leftrightarrow q_{50\%} = \text{median} = 2123,89 \text{ €}$$

$q_{75\%}$ of with 0,665 of 0,787

$$\Rightarrow \frac{75\% - 66,5\%}{78,7\% - 66,5\%} = \frac{q_{75} - 3000}{5000 - 3000}$$

$$\Leftrightarrow q_{75\%} = \underline{\underline{4393,44 \text{ €}}}$$



Dennis question:

1500 of water 1200 of 1800.

Compare per the quarters on calculate

$$\frac{1500 - 1200}{1800 - 1200} = \frac{p\% - 20,4\%}{43,3\% - 20,4\%}$$

$$\text{dane } p\% = 32,15\%$$

5400 out of the 5000 of 70.000

(All 200000)

$$\frac{5400 - 5000}{10000 - 5000} = \frac{p\% - 78,7\%}{94,1\% - 78,7\%}$$

$$\Rightarrow p\% = 79,93\% \quad \text{send in draws}$$

d. 5400 €.

dane (100 - p)% = 20,07% on draws of 5000 €.

$$\frac{3500 - 3000}{5000 - 3000} = \frac{p\% - 43,9\%}{66,5\% - 43,9\%}$$

$$\Rightarrow p\% = 49,55\% \quad \text{set on draws of 3500 €.$$

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purchase 32,15% sent in loan of 1500 €

on a 49,55 - 32,15 = 17,4% extra 1800 of 3500 €.

Ex 4

$$\overline{X_6} = \frac{1}{6} (3442 + 2195 + \dots + 4150) = 3540 \text{ €}$$

$$S_6^2 = \frac{1}{6} \left((3442 - 3540)^2 + (2195 - 3540)^2 + \dots + (4150 - 3540)^2 \right) = 740662$$

$$\overline{S_6} = 860,81 \quad (\text{value on the } S_6^2)$$