Ex 1:

A = 12 - (3 · 5) = 12 - 8 = 4

B = 7 × 8 + 13 = 56 + 13 = 69

C = 12 × 13 + 8 = 156 + 8 = 164

D = 5 + 11 × 4 = 49

E = 6 × 4 + 3 = 27

F = 2 × 2 + 2 = 4 + 2 = 6

S = 24 ÷ 2 = 8 - 2 = 6

G = 4 - 3 × 4 = 4 - 12 = -8

M = 7 × 10 + 5 = 70 + 5 = 75

H = 4 × 16 - 3 = 64 - 3 = 61

N = 6 × 2 + 6 = 14

I = 2 ÷ 2 - 1 = 1 - 1 = 0

O = 8 ÷ 2 - 1 = 4 - 1 = 3

W = 6 ÷ (3 + 8 ÷ 4) = 6 ÷ (3 + 2) = 1

J = 14 - 3 + 5 = 11 + 5 = 16

K = 3 ÷ (4 + 2) = 1/2

L = 6 ÷ (4 + 2) = 1

D = 44 ÷ 2 - 10 = 12

Q = 8 - 4 ÷ 2 = 8 - 2 = 6

R = 7 × 10 + 5 = 75

X = 4 × (16 × 3 ÷ 6 + 2)
= 4 × (16 × 1/2 + 2)
= 4 × (8 + 2)
X = 24

Ex 2:

A. $\alpha = \frac{9}{3} = \frac{18}{6}$ $\quad \varepsilon = \frac{18}{36} = \frac{1}{2}$ $\quad t = \frac{5}{2,5} = \frac{12}{6}$

$\beta = \frac{4}{1,2} = \frac{20}{6}$ $\quad \phi = \frac{4}{8} = \frac{20}{40}$ $\quad \mu = \frac{24}{8} = \frac{36}{12}$

$\chi = \frac{5}{10} = \frac{1}{2}$ $\quad \gamma = \frac{66}{11} = \frac{42}{7}$ $\quad \kappa = \frac{220}{10} = \frac{44}{2}$

$\delta = \frac{66}{6} = \frac{77}{7}$ $\quad \eta = \frac{120}{6} = \frac{140}{7}$ $\quad \lambda = \frac{13}{1} = \frac{26}{2}$

B. $\nu = \frac{4}{3} \times \frac{18}{6} = \frac{4 \times 3 \times 6}{3 \times 6} = 4$ $\quad \rho = \frac{18 \times 36}{9 \times 18} = \frac{18 \times 9 \times 4}{9 \times 18} = 4$

$o = \frac{9}{2} \times \frac{18}{6} = \frac{9 \times 9 \times 2}{2 \times 6} = \frac{9 \times 3 \times 3}{3 \times 2} = \frac{27}{2}$ $\quad \sigma = \frac{150}{5} \times \frac{300}{100} = \frac{30 \times 5 \times 3 \times 100}{5 \times 100} = 90.$

$\pi = \frac{7}{3} \times \frac{21}{49} = \frac{7 \times 3 \times 7}{3 \times 7 \times 7} = 1$ $\quad \tau = \frac{108}{360} \times \frac{18}{6} = \frac{3 \times 6}{3 \times 6} = 1$

$\theta = \frac{6}{3} \times \frac{3}{4} = 1$ $\quad \upsilon = \frac{18}{6} \times \frac{3}{2} = \frac{3 \times 6 \times 3}{6 \times 2} = \frac{9}{2}$

$\omega = \frac{4}{28} \times \frac{66}{6} = \frac{4 \times 11 \times 6}{6 \times 4 \times 7} = \frac{11}{7}$

$\xi = \frac{54}{6} \times \frac{12}{9} = \frac{9 \times 6 \times 6 \times 2}{6 \times 9} = 12.$

$\psi = \frac{15}{7} \times \frac{13}{11} = \frac{195}{77}$

$\zeta = \frac{3}{1} \times \frac{1}{6} = \frac{3}{2 \times 3} = \frac{1}{2}$

Ex 3. a) 0000
1111
2222
3333
4444444
555
666666666
777777777
88888888
999999

b. $3\times0 + 4\times1 + 4\times2 + 4\times3 + 7\times4 + 3\times5 + 9\times6 + 9\times7 + 9\times8 + 6\times9$

$= 4 + 8 + 12 + 28 + 15 + 54 + 63 + 72 + 54$

$= \frac{59}{59}$

moyenne = 5,25 (2 chiffre ap. virgule).

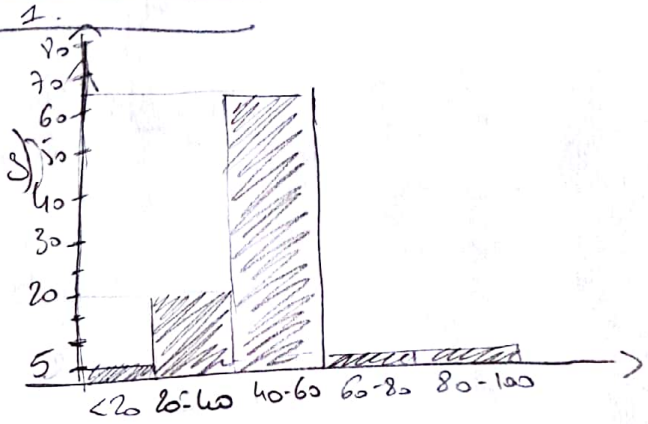
c) La médiane est la $\frac{58}{2}+1^e$ valeur = la 30e valeur.

La médiane vaut 4.

d) l'étendue : 9. (= 8-0)

e)

	0	1	2	3	4	5	6	7	8	9	Total
	4	4	4	4	7	3	9	9	9	6	59
fréquence	0,07				0,12	0,05	0,15			31	1.



Ex 4.

a) 5 %

2)
20-40 = 20 %.
<20 = 5 %.
>80 = 5 %.
60-80 = 5 %.
40-60 = 65 %.

4)
20-40 = 20 % × 1300 = 260
<20 = 65
>80 = 65
60-80 = 65
40-60 = 845

Ex 5

1. $A(\text{rect}) = \frac{ab}{2}$

2) $A(4\text{ triangle}) = \frac{4\times ab}{2} = 2ab$

2) a) $(b-a)(b-a)$ b) $(b-a)(b-a) = b^2 - 2ab + a^2$

3) $A_{tot} = b^2 - 2ab + a^2 + 2ab = b^2 + a^2$

4) $\text{exc} = c^2$

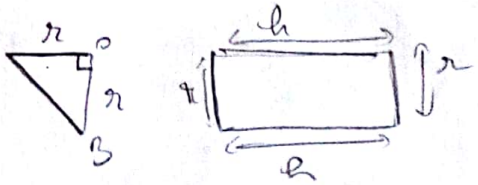
5) (3) = (4) $\rightarrow c^2 = a^2 + b^2$ (théorème de Pythagore)

Ex 6

1. AOB → triangle isocèle rectangle

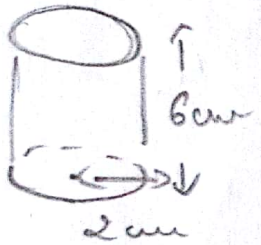
2. ABB'A' → rectangle

B)



Ex 2

a)



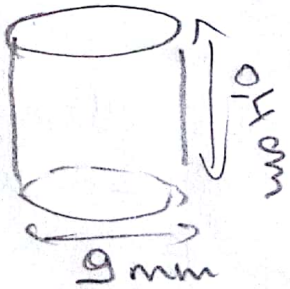
- Aire
$\pi \times 2^2 = 4\pi \text{ cm}^2$
- Volume
$6 \times 4\pi = 24\pi \text{ cm}^3$

b)

- Aire
$\pi \times 3^2 = 9\pi \text{ cm}^2$
- Volume :
$4 \times 9\pi = 35 \text{ cm}^3$

c)

- Aire
$\pi \times 50^2 = 2500 \text{ cm}^2$
- Volume
$6 \times 2500\pi = 15000 \text{ cm}^3$



- Aire
$\pi \times 4{,}5^2 = 20{,}25\pi \text{ mm}^2$
$40 \times 20{,}25\pi = 81\pi \text{ mm}^3$