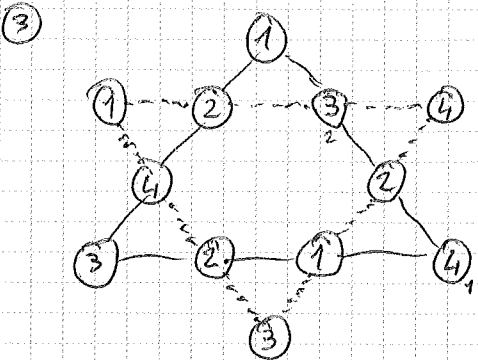


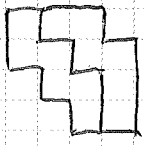
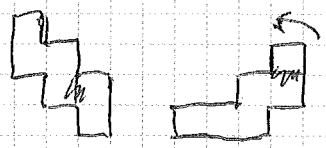
① 4

②

2	2	2	0	0
2				0
1	1	1	1	0

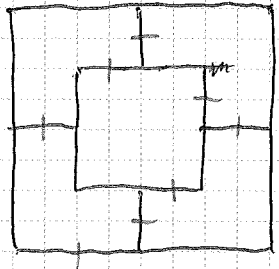


④ Nb max de faces à coller?



$6 \times 2 = 12 ?$

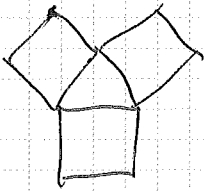
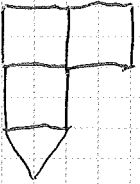
⑤



8

~~⑥~~

⑥



$$3 \times 5 + 2 = 17$$

⑦

$$+9 + 2 + 8 \times 3 : 6 \times 5$$

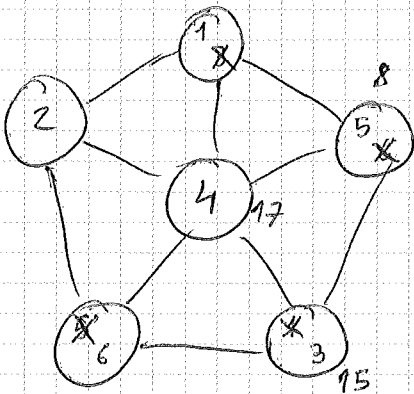
$$(n+19) \times 5/2 \rightarrow 70$$

$$(n+10) \times \frac{5}{2} + 9 \text{ non}$$

$$((n/6) \times 5 + 19) \times 3 = 24 \times 3 = \underline{\underline{72}}$$

$$(5n+19)/2 \text{ non}$$

⑧



$$1+2+\dots+6 = 21$$

\Rightarrow 4 au centre

$$15 = 4 + 5 + 6$$

$$8 = 4 + 1 + 3$$

$$11 = 4 + 1 + 6$$

$$= 4 + 2 + 5$$

⑨

$$1 \rightarrow 3, 12, 19 \text{ non}$$

Unité : 7

$$9 \quad 18 \quad 25 \quad 30 \quad \neq 7$$

$$19 \quad 28 \quad 35 \quad 40 \quad \neq 17$$

2nd \circ \curvearrowright

⑩ Les segments (droites)

les 2 types de segments: cote et diag.

CCCD: 5

CCDD: 5

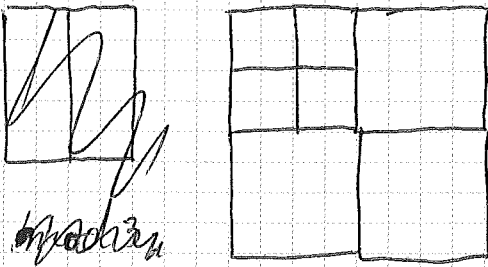
CDCD: imp.

CDDD: 5

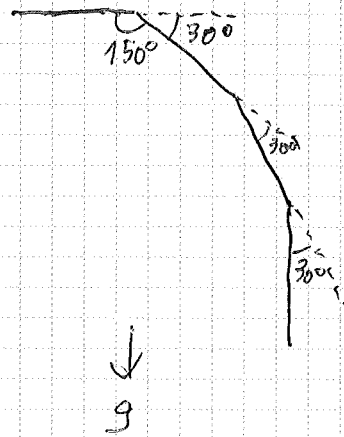
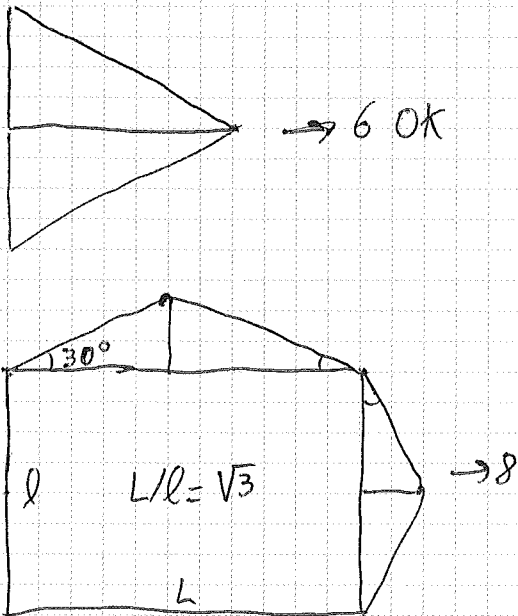
DDDD: • Avec 2 diag entières: 5
• Sinon: 5

→ 25

⑪



⑫



(13) $(2a+1)(2b+1)(2c+1) \rightarrow$ boîte
 $8abc \rightarrow$ cubes

$$\frac{8abc}{(2a+1)(2b+1)(2c+1)} = \frac{64}{100}$$

$$\frac{abc}{(2a+1)(2b+1)(2c+1)} = \frac{2}{25}$$

a pair
 b, c impairs

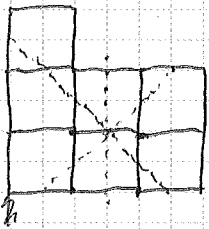
$a=2, b=7, c=3$

$$\frac{2 \times 3 \times 7}{5 \times \cancel{15} \times 7}$$

$\rightarrow 5 \times 15 \times 7 = 75 \times 7 = \underline{525}$

$a=202$

(14) 28 quarts

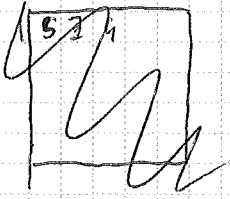


15) $1 \times 7 \times 4 \times 9 \times 12$

$$1 \times 7 \times 4 \times 9 \times 12 = 7 \times 4 \times 108$$

$$= 7 \times 432$$

$$= 3024$$



$$28 \times 9 = 252$$

$$252 \times 12 = 2520 + 504 = 3024$$

$$\begin{array}{r} 252 \\ \times 12 \\ \hline 504 \\ 2520 \\ \hline 3024 \end{array}$$

→ choix : 1, 4, 7, 9, 12

16) a) $20 \rightarrow 2 \rightarrow 2k \rightarrow 10 \rightarrow 1 \rightarrow k \rightarrow 20$
 $k \geq 50$

~~$k = 20a$~~

$k = \overline{a20}$ non

$= \overline{2a0}$ non

$= \overline{20a}$ $2k = 410, k = \underline{205}$

$20 \rightarrow 2 \rightarrow 410 \rightarrow 10 \rightarrow 1 \rightarrow 205 \rightarrow 20$

b) $20 \rightarrow 2 \rightarrow 2k \rightarrow 10 \rightarrow 10k \rightarrow 10 \rightarrow 20$

$k \geq 50$

~~$50 \leq k \leq 99$~~ avec chiffres

~~$k = 10a$~~

~~$2k = 10a$~~

~~$10k = 20 \rightarrow 2 \rightarrow 10a \rightarrow 10 \rightarrow 20$~~

$10k$: 4 chiffres.

k : 3 chiffres. impossible dont un 2

ex. $2 \overline{abc} = d10 \rightarrow a = 2$

~~$k = 20a$~~ $k = 205$ ou 255
 (traverse)

$20 \rightarrow 2 \rightarrow 510 \rightarrow 10 \rightarrow 2550 \rightarrow 250 \rightarrow 20$

c) $20 \rightarrow 20k \rightarrow \dots \rightarrow 10 \rightarrow 10k \rightarrow \dots \rightarrow 20$

4 chiffres 3 chiffres

4 chiffres

$k = 3$ non $\rightarrow 20k^2$ imp.

$k \geq 100$

$k \geq 50$

~~$k = 10a$~~

~~$20k$~~

$100 \leq k \leq 500$

$20k$ contient 10

$10k$ " 20

$2k$ contient 1

k " 2

$k = 2ab$ $b \geq 5$

$a = 0$ ou 5

$\rightarrow k = 205 \dots 209$
 $255 \dots 259$

10 sol^o

$k = a2b$ imp.

$k = ab2$ imp.

16) suites

17)

210.201
210.120
210.200
202101

~~321~~ 3 → 3 2 1

~~210~~ 2 → 3 1

1 → 2

3 2 1 3 1 2 3 2 1 2 3 1
3 2 1

3 → 6 → 12 → 24

3×2^n

$3 \times 512 = 1536$

3072

3 1 1 1 3072
3 1 1
↑ ②
1536

$2002 - 1536 = 466$

2002: 2 | 466

23 | 466

6 1 1 1 taille 1024 = 4 × 256
6 1 1
⑤ ↑
466

232 | 82

3 2 1 1 1 taille 768 = 6 × 128
3 ② 1

$466 = 384 + 82$

4 1 1 1 taille 256 = 4 × 64
4 1 1

2323 | 82

3 2 1 1 1 taille 192 = 6 × 32
3 ③ 2 1

3 2 1 1 1 taille 96 = 6 × 16
3 2 ① 1

23233 | 82

2 1 1 1 taille 16
2 1 1 1

232331 | 2

3 1 1 1

2323312 | 2

Type 1 et supprimer les 2 premiers.

↳ 31 → 3212 → 321312 ...

020121012 ?