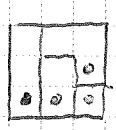
①



② $A \neq 2$ $B \neq 0$ $C \neq 1$ $D \neq 1$

$D < A \rightarrow A = 1$ et $D = 0$

$\rightarrow B + C = 3 \rightarrow B \geq 1, C \geq 1$

$\rightarrow C = 2$ et $B = 1$

Rép: 1 1 2 0

③ 8 3 1 4 2 6 7 5

④ $3^n \rightarrow 27$

$58 = 2 \times 3^3 + 3 + 1$

1 1 0 2

⑤ 1 3 5 7 / 4 6 ou 1 3 5 7 / 2 8 6 4

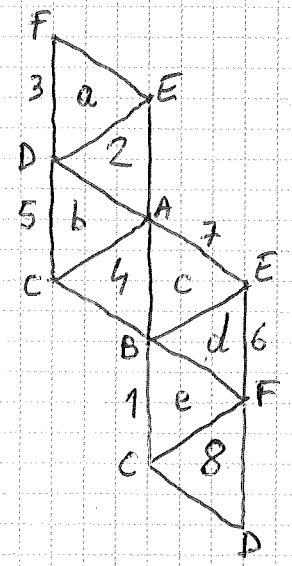
$2 + 8 + 6 + 7 = \underline{23}$

⑥

$5 \times 4 = 20$		$5 \times 4 = 20$
$9 + 2 = 11$	ou	$8 + 3 = 11$
$8 - 7 = 1$		$- \quad = 1$
$6 : 3$		$:$
restent: 3, 6, 7, 8		2, 6, 7, 9

⑦ $S = 1 + 2 + \ldots + 8 = 36$

$\Delta = S/2 = 18$



A: $b + c = 12$

B: $c + d + e = 14$

C: $b + e = 6$

D: $a + b = 8$

E: $a + c + d = 16$

F: $a + d + e = 10$

$b = \ldots$

$c = 12 - b$

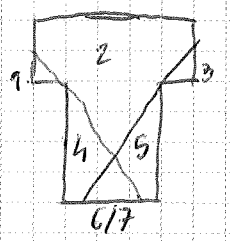
$e = 6 - b$

$a = 8 - b$

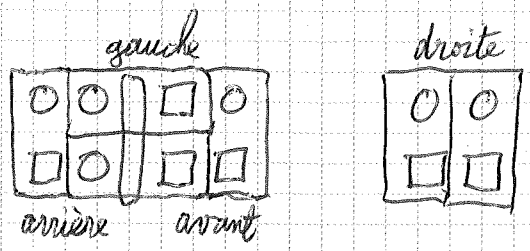
$d = 2b - 4 \rightarrow$ pair $\Rightarrow d = 6$

$\Rightarrow b$ impair $\Rightarrow b = 5$

(8)



(9)



(10) ~~abc~~ → 6 au max

abcd → 10 au max

abcd → 10 → 3 → 1

a, b, c, d ≠ .

1234

1b

(11) 58 kg pour 2 → 11 EUR

" " ⇒ 20 EUR

Supp. P < 29

~~LEGER~~

pour LEGER : 11k kg de taxe

LOURD : 20k kg de taxe

2 bagages taxés : 58 − 2P kg de taxe

58 − 2P = 11k

1 b.t. : 58 − P − Q kg de taxe (cas de LOURD)

avec Q < P

↑ pds des bagage non taxé

58 − P − Q = 20k

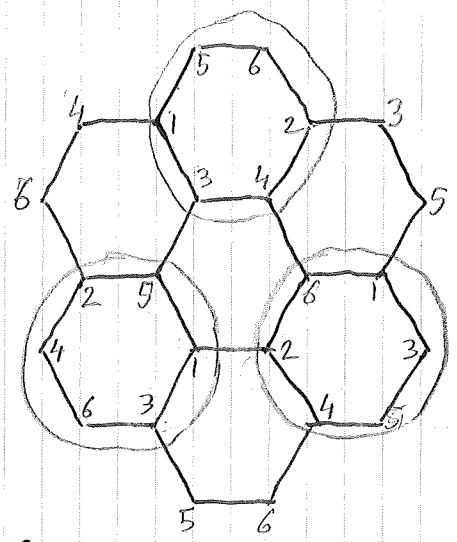
= $\frac{20}{11}$ (58 − 2P)

11 × 58 − 11P − 11Q = 20 × 58 − 40P

11Q = 29P − 9 × 58 ≥ 0

P ≥ $\frac{9 \times 58}{29}$ = 18

(12)



$1+2+3+4+5+6 = 21$

~~$3 \times 21 + (5+6) \times 3$~~

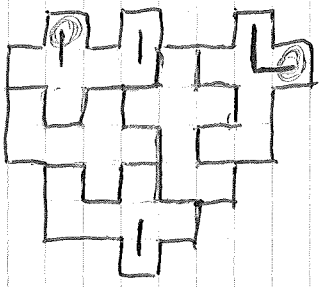
~~$3 \times 21 + 3+4+5+6$~~ ? ~~84~~ ?

$3 \times 21 + 3+4+5+5+6+6$

$63 + 29 = 92$

~~12~~

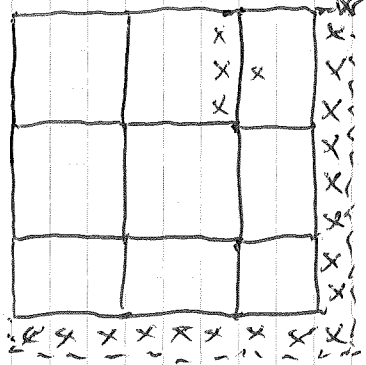
13



5×7

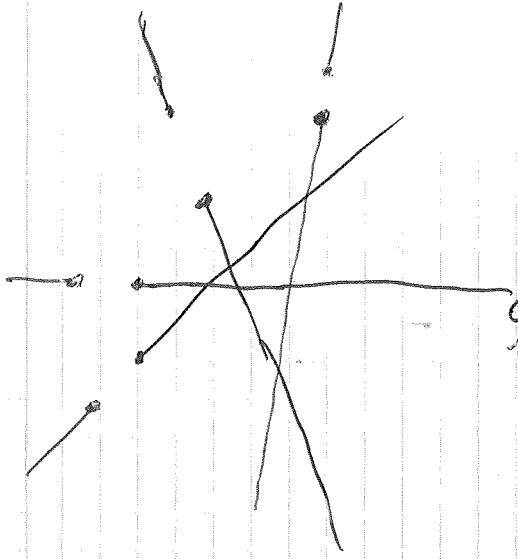
14

Periode 3×3? max?



4×9 − 17 = 36 − 17 = 19 ?

(16)



0	1	2	3	4	5	
1	1	2	4	7	11	
	0	1	2	3	4	
		1	1	1	1	
			0	0	0	

$$\frac{n(n-1)}{2} + 1$$

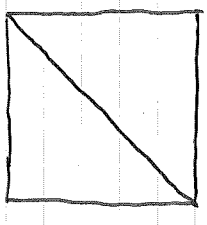
$$\frac{2011 \times 2010}{2} + 1 =$$

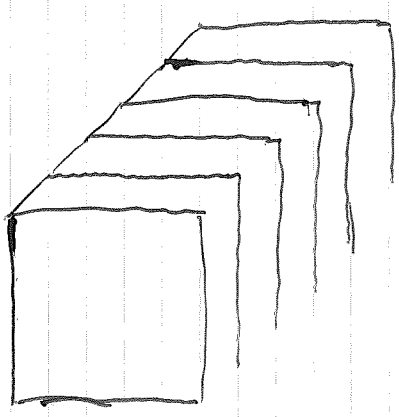
$$\begin{array}{r} 2011 \\ \times\ 2010 \\ \hline 2011 \\ 4022 \\ \hline 4042110 \end{array}$$

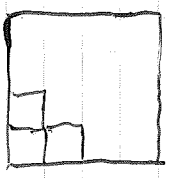
$$\begin{array}{r} 2021055 \\ +\ \quad\quad 1 \\ \hline 2021056 \end{array}$$

(17)

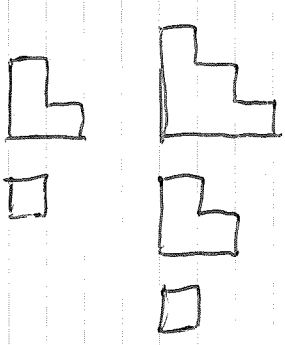
Carré :







1
3
6



1 3 6 10 15

1
3
3
1

1 3 x y x 3 1

1 3 9 3 1

5 5

27 - 8 = 19