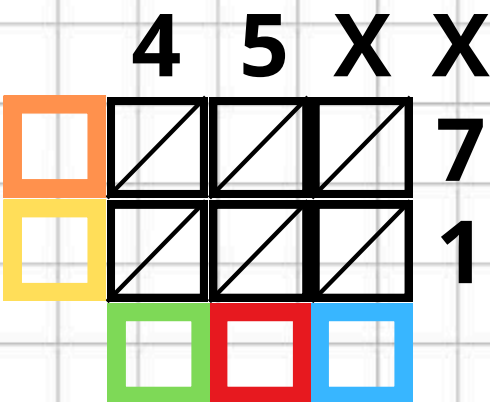
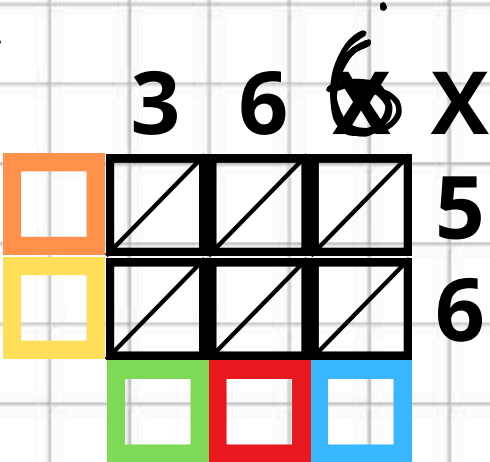
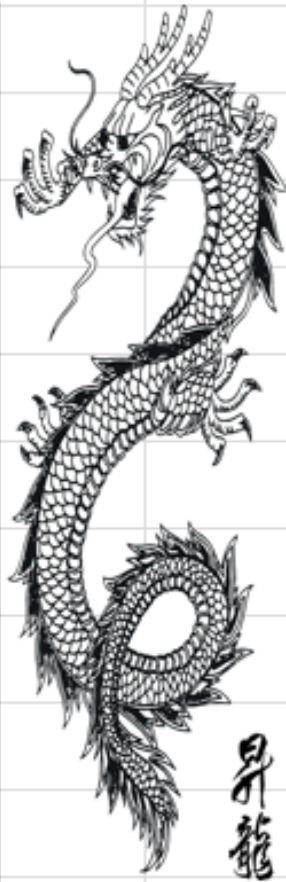


TRABOCCHETTI SOTTO L'OMBRELLONE

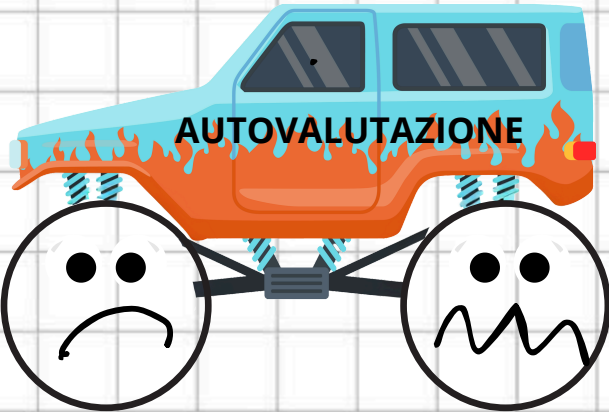
1000-8092= -7092



100	90	80	70	60	50	40	30	20	10	0	10
90	81	72	63	54	45	36	27	18	9	0	9
80	72	64	56	48	40	32	24	16	8	0	8
70	63	56	49	42	35	28	21	14	7	0	7
60	54	48	42	36	30	24	18	12	6	0	6
50	45	40	35	30	25	20	15	10	5	0	5
40	36	32	28	24	20	16	12	8	4	0	4
30	27	24	21	18	15	12	9	6	3	0	3
20	18	16	14	12	10	8	6	4	2	0	2
10	9	8	7	6	5	4	3	2	1	0	1
0	0	0	0	0	0	0	0	0	0	0	0
10	9	8	7	6	5	4	3	2	1	0	X



86	4	90	4	72	5	86	4
46	10	50	10	22	10		
6	10	10	10	R2	4		
R2	1	2	2		14		
	11	R2	22				



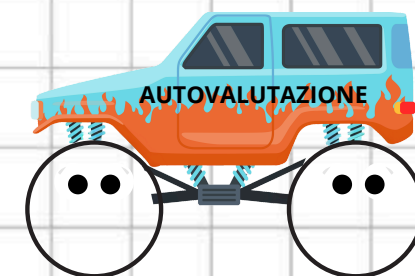
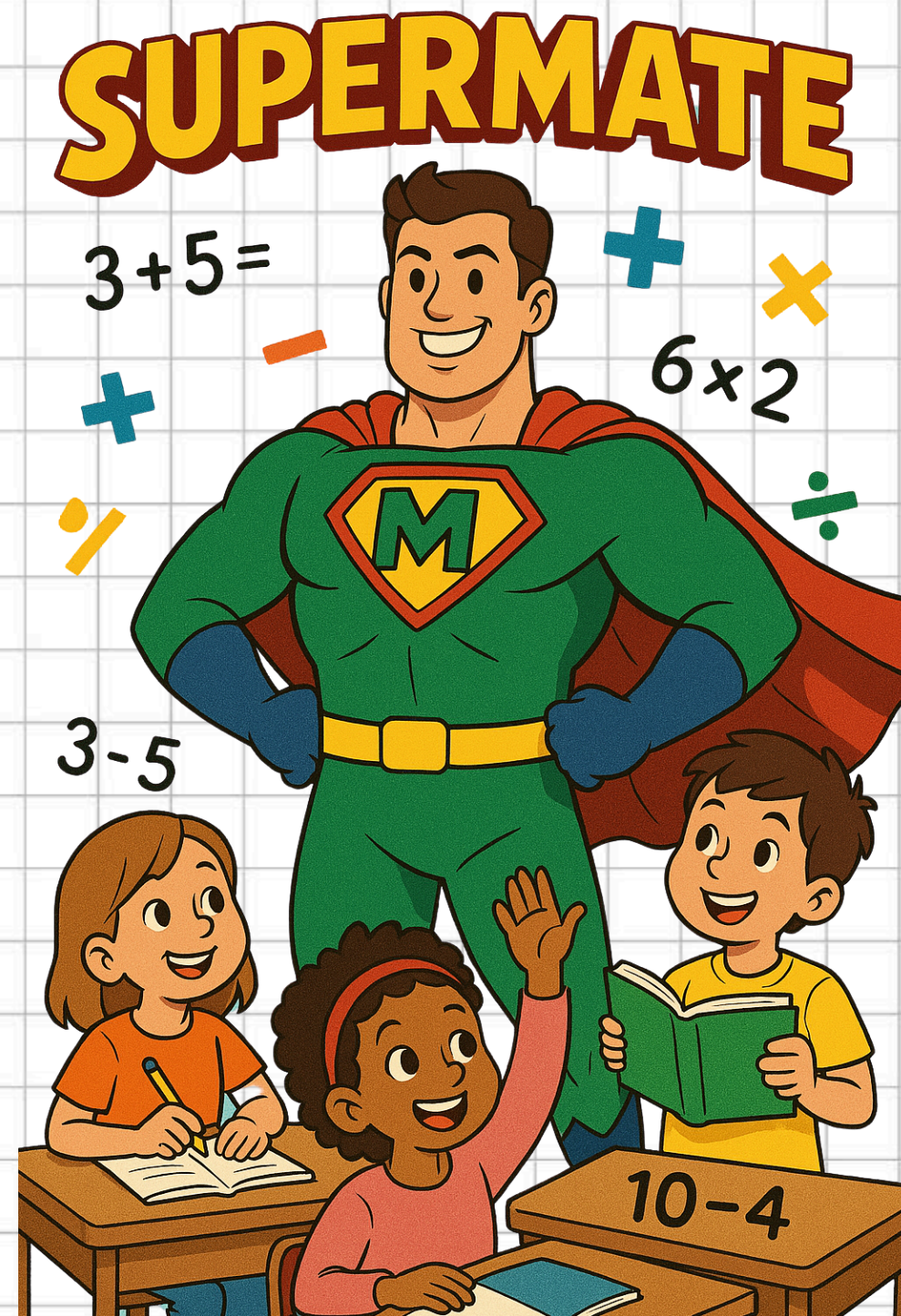
IL MAGICO 9

SE AD UN NUMERO SOTTRAGGO
LA SOMMA DELLE SUE CIFRE...
LA SOMMA DELLE CIFRE SARA'
SEMPRE NOVE

$$20 - 2 = 18$$

$$75 - 12 = 63$$

$$22 - 4 = 18$$



MOLTIPLICAZIONI A CONFRONTO

BIRICUOCOLO*

$$\begin{array}{r} \text{+3} \\ 4 \ 5 \times \\ 7 \ 2 = \\ \hline \end{array}$$

$$\begin{array}{r} \text{1} \\ \boxed{3} \ \boxed{1} \ \boxed{5} \\ \hline \boxed{3} \ \boxed{2} \ \boxed{4} \ \boxed{0} \end{array}$$

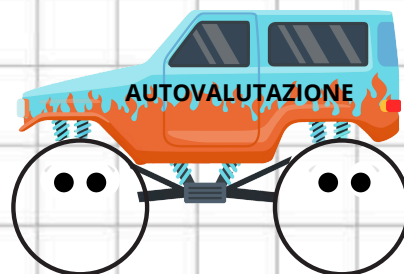
$$\begin{array}{r} \boxed{9} \ \boxed{0} + \\ \hline \end{array}$$

$$\begin{array}{r} 74 \times \\ 36 = \\ \hline \end{array}$$

$$\begin{array}{r} \boxed{4} \ \boxed{4} \ \boxed{4} + \\ \boxed{2} \ \boxed{2} \ \boxed{2} = \\ \hline \boxed{2} \ \boxed{6} \ \boxed{6} \ \boxed{4} \end{array}$$

**TRY
NOW**

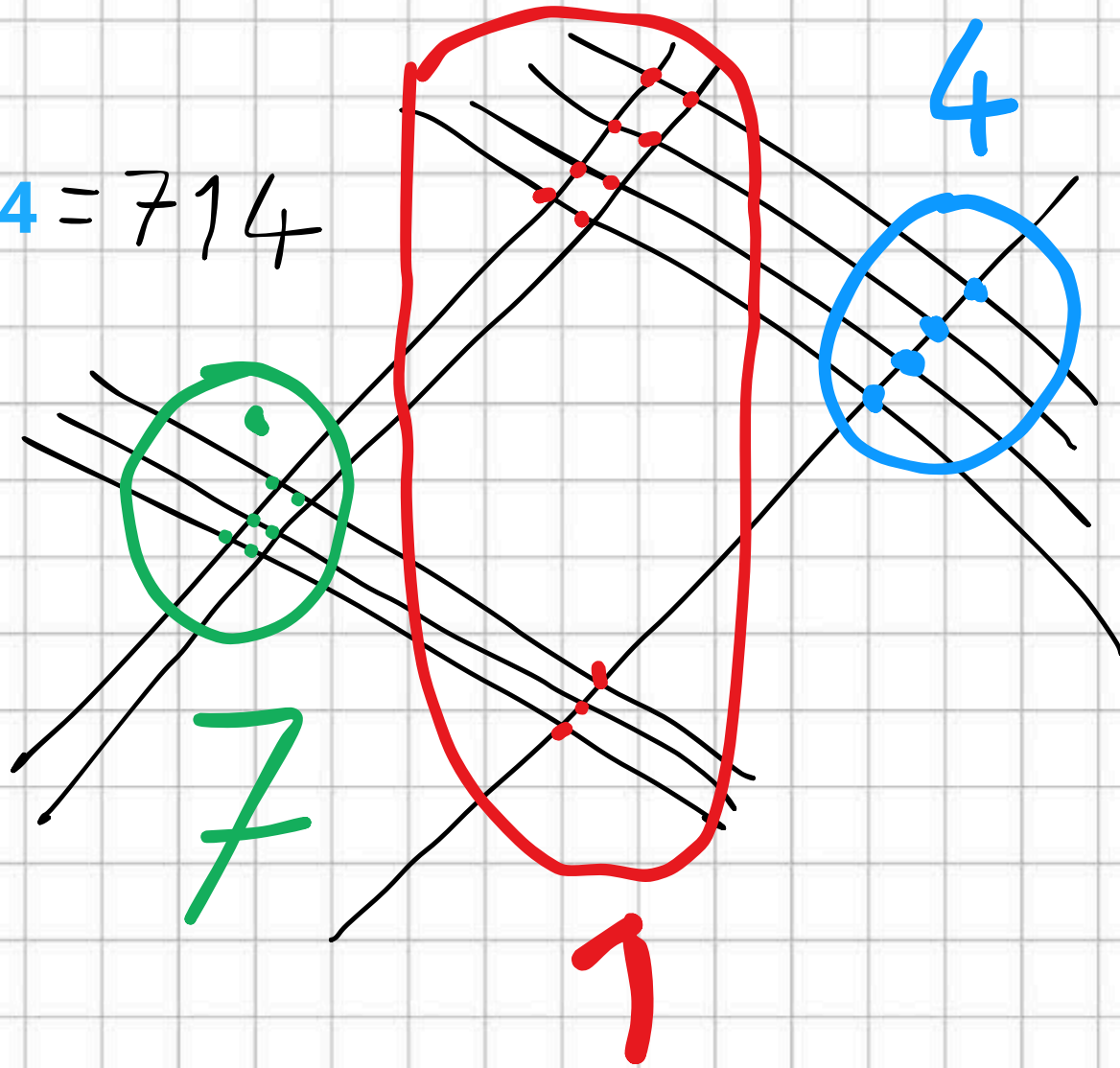
*Il metodo tradizionale, comparso nel XV secolo, era detto metodo per "biricuocolo" in Toscana, "scacchiere" a Venezia, "organetto" a Verona.



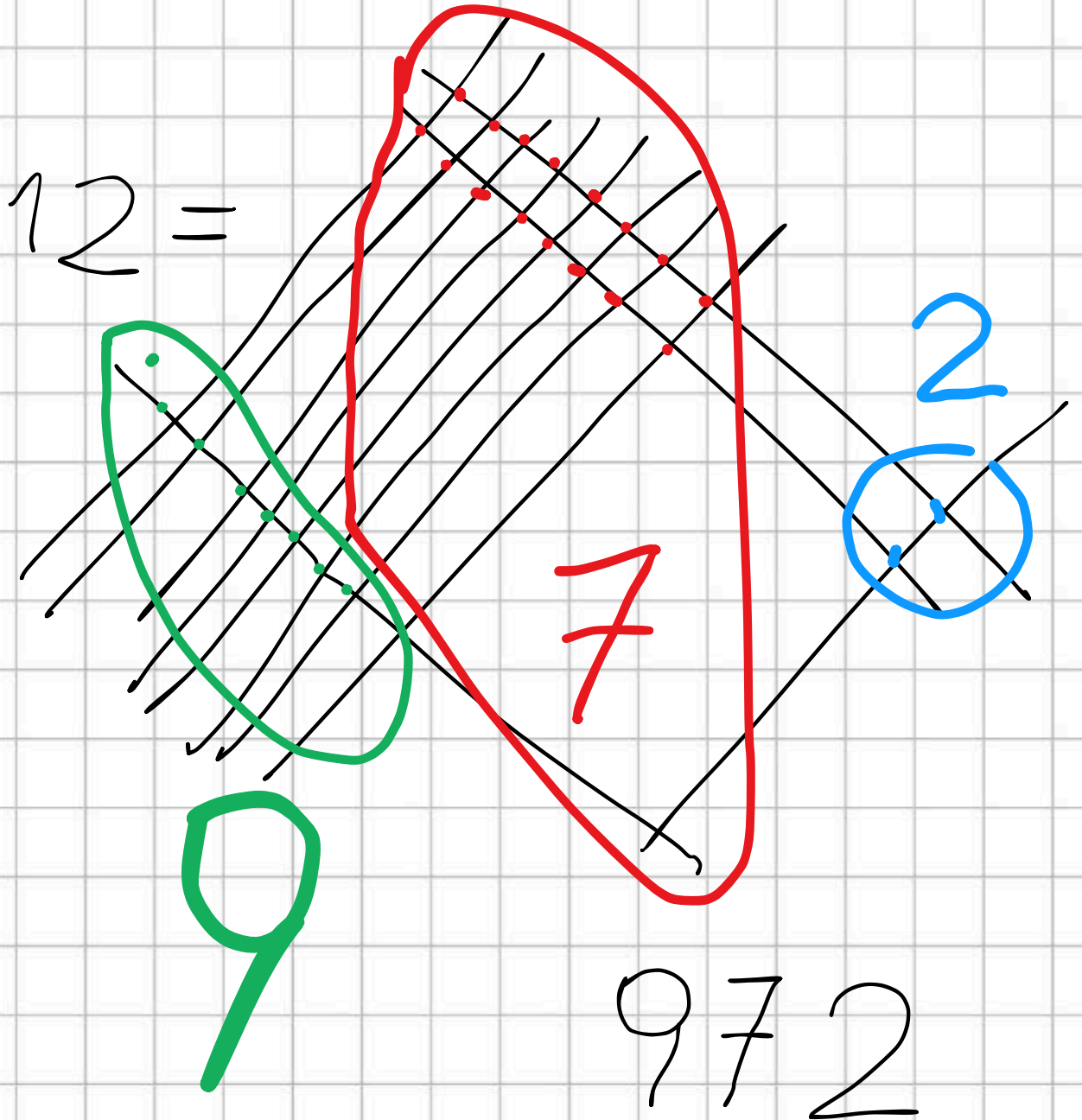
MOLTIPLICAZIONI A CONFRONTO

CINESE

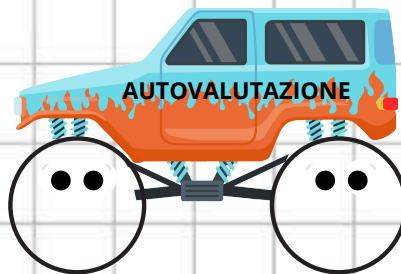
$$21 \times 34 = 714$$



$$81 \times 12 =$$



$$972$$



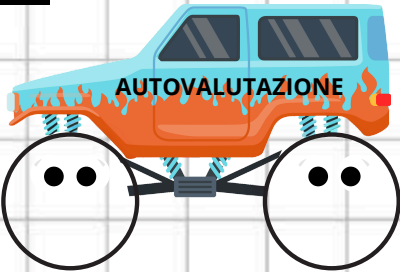
SCEGLI UN NUMERO E DIMMI IN CHE RIGHE SI TROVA...
TI LEGGERO' NEL PENSIERO!

1	3	5	7	9	11	13	15
2	3	6	7	10	11	14	15
4	5	6	7	12	13	14	15
8	9	10	11	12	13	14	15

1	3	2	4
2	4	1	3
4	1	3	2
3	2	4	1

	1		
4			
	3		4
		3	

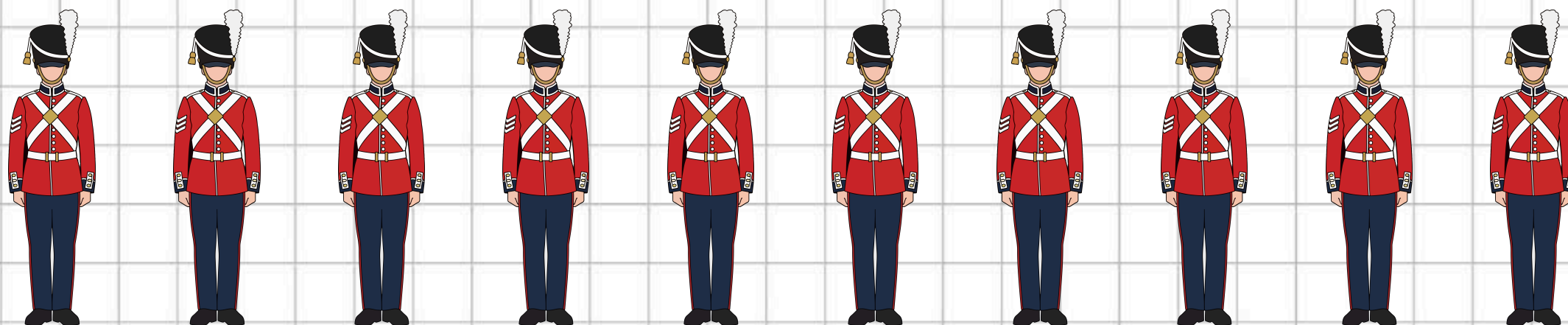
	3		
			4
			1
	1		



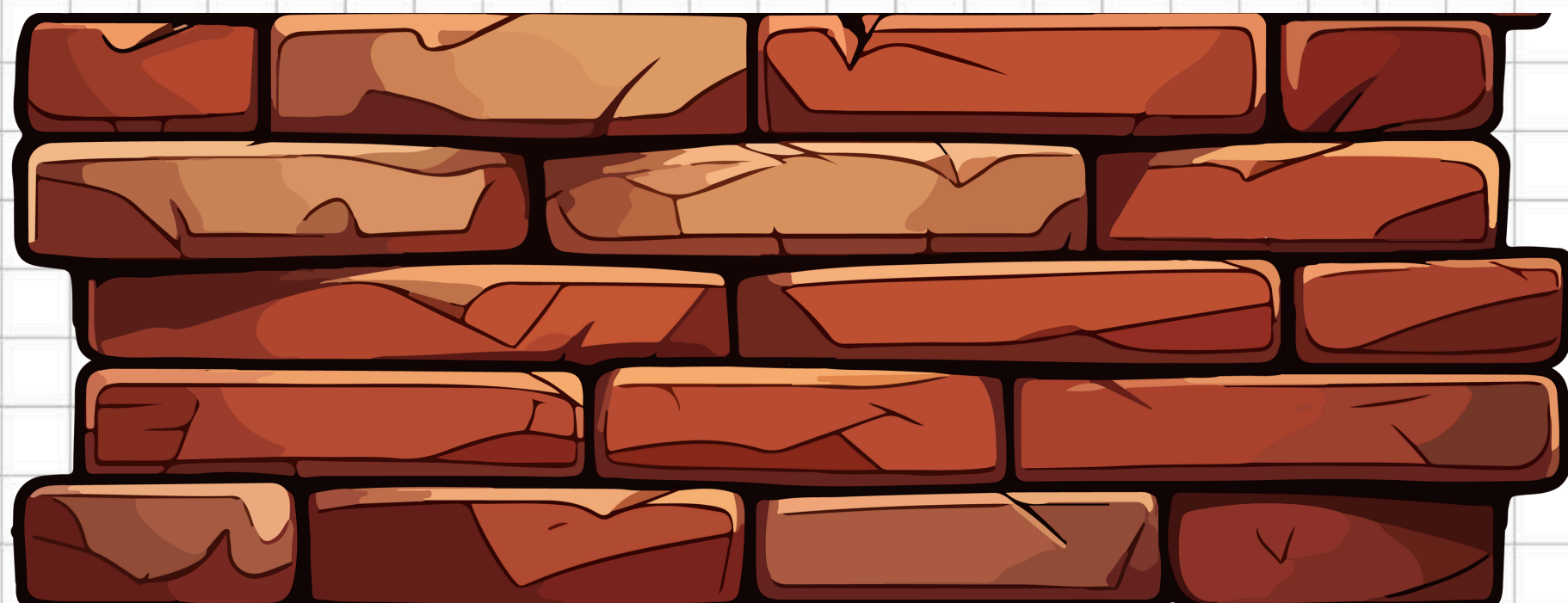
Escape from CENTELLO

MATERIALE MATEMAGIE

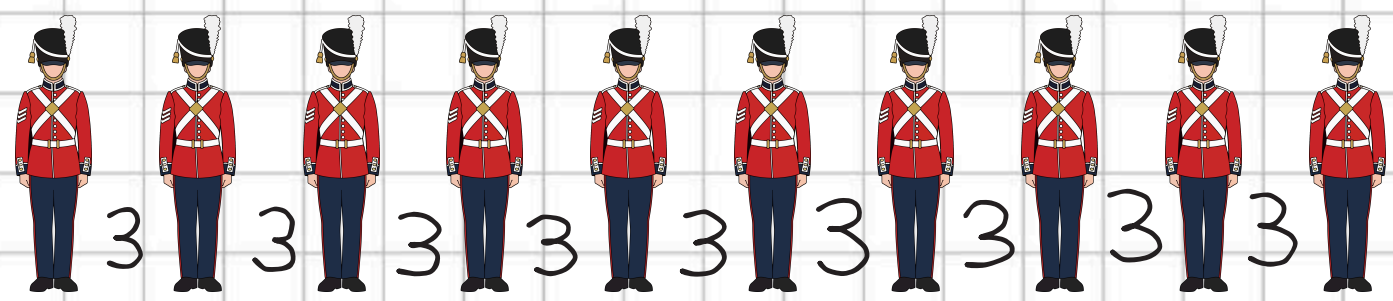
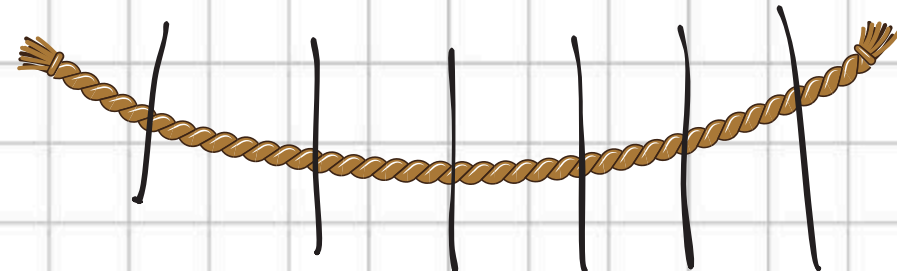
OGNI SOLDATO E' DISTANZIATO DI 3 METRI. QUANTO DISTANO IL PRIMO E L'ULTIMO?



LA LUMACHINA DI GIORNO SALE 3 MATTONCINI, LA SERA SCIVOLA DI DUE. DOPO QUANTI GIORNI ARRIVERA' IN CIMA AL MURETTO?



Escape from
GENTIELLO
SOLUZIONI



8	1	6
3	5	7
4	9	2

1	2	3	4	5	6	7	9	X
<div>9/1</div>	<div>8/2</div>	<div>7/3</div>	<div>6/4</div>	<div>5/5</div>	<div>4/6</div>	<div>3/7</div>	<div>1/9</div>	9
1	1	1	1	1	1	1	1	1

1	2	3	4	5	6	7	9	X
<div>0/8</div>	<div>1/6</div>	<div>2/4</div>	<div>3/2</div>	<div>4/0</div>	<div>4/8</div>	<div>5/6</div>	<div>7/2</div>	8
9	8	7	6	5	4	3	2	



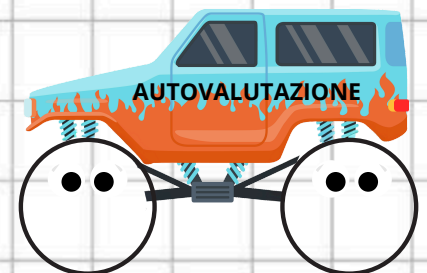
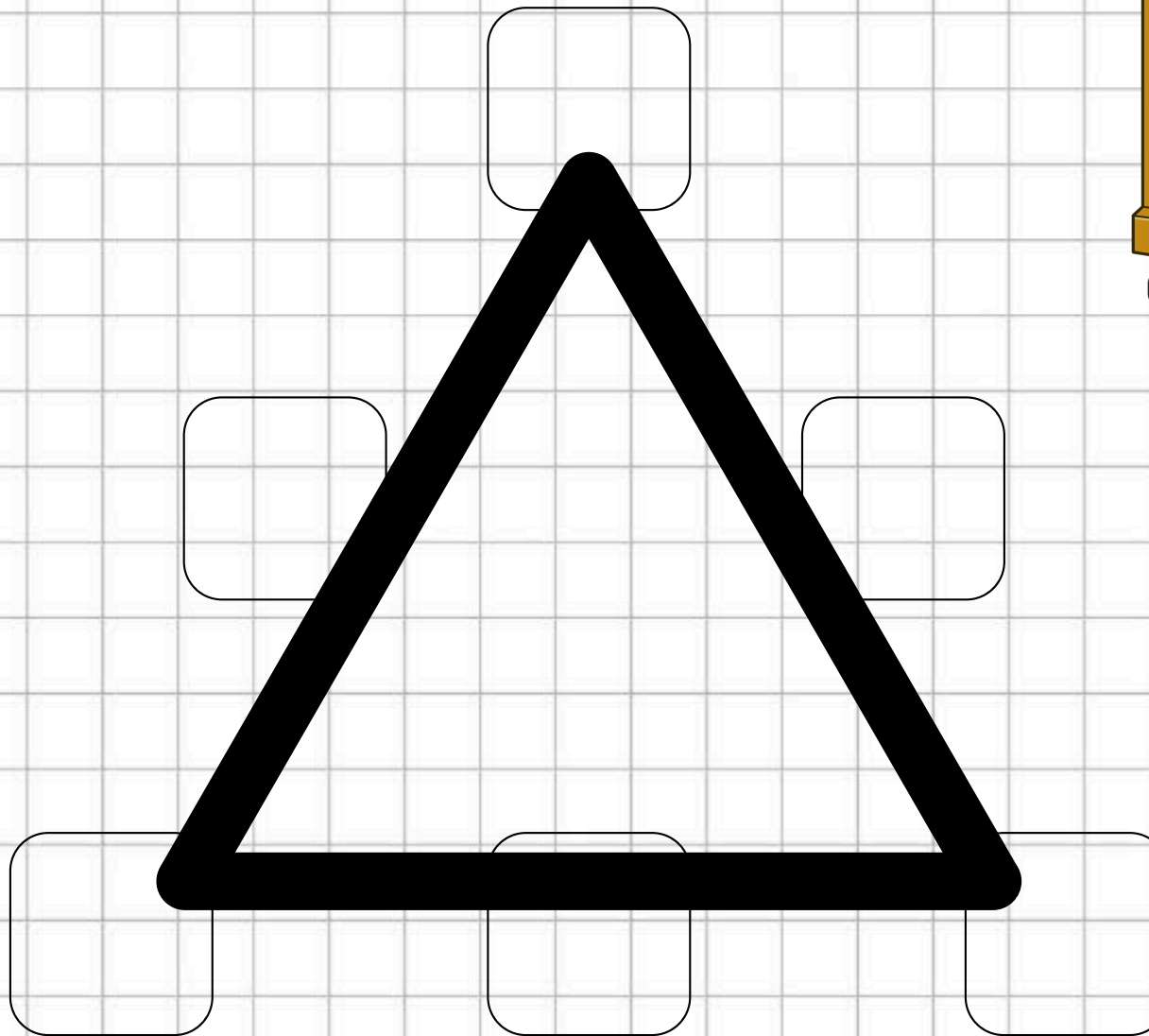
TRIANGOLAZIONI MISTERIOSE

TROVA LA CHIAVE DELL'ENIGMA PER ENTRARE NELLA PIRAMIDE DEL FARAONE

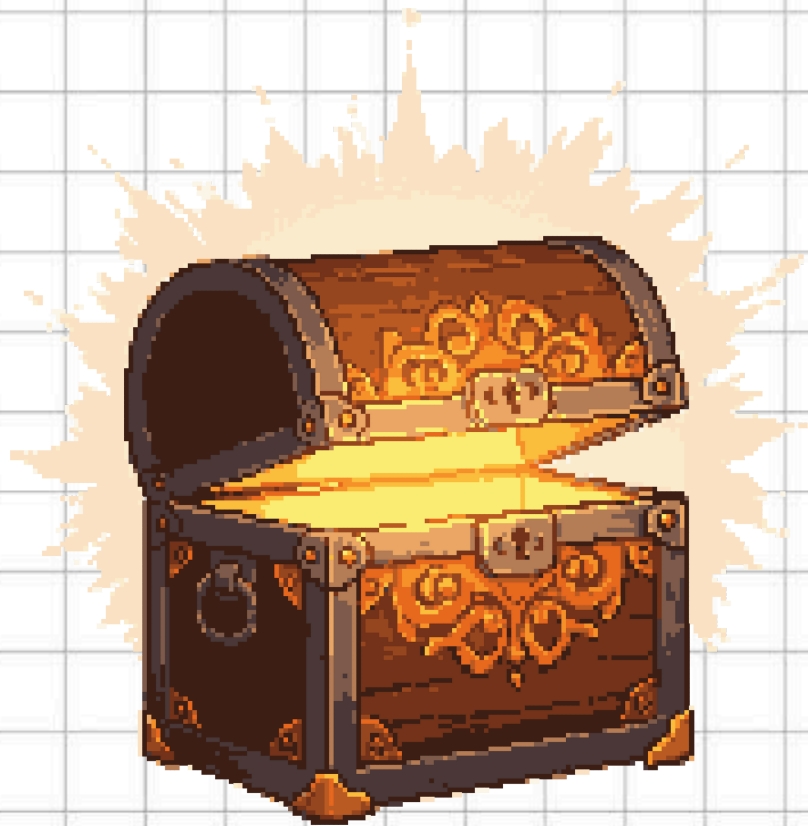
INSERISCI LE CIFRE DA 1 A 6, UNA VOLTA SOLA PER TROVARE LA
COMBINAZIONE DELLA SERRATURA DELLA PORTA DEL FARAONE



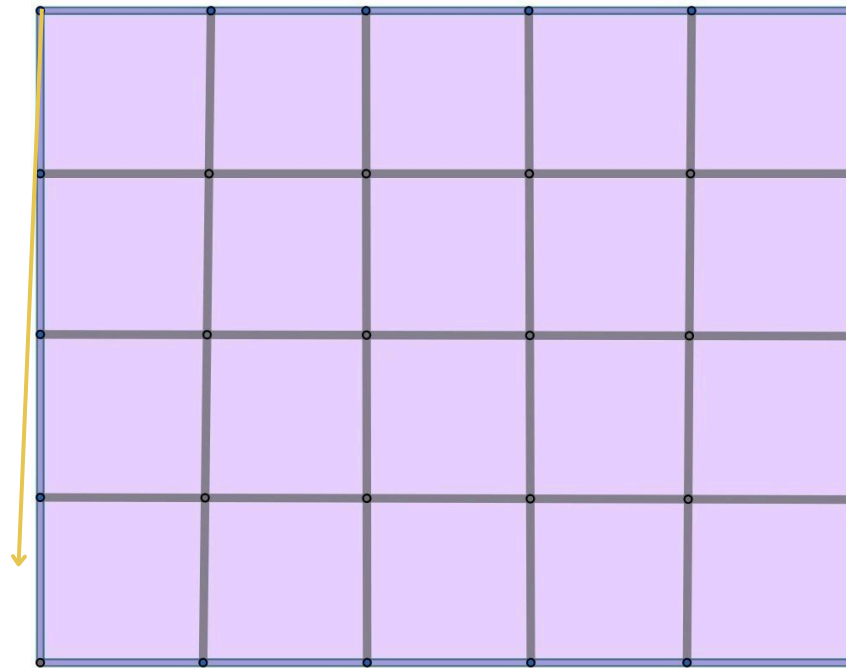
LA SOMMA DI OGNUNO DEI
LATI E' UNDICI



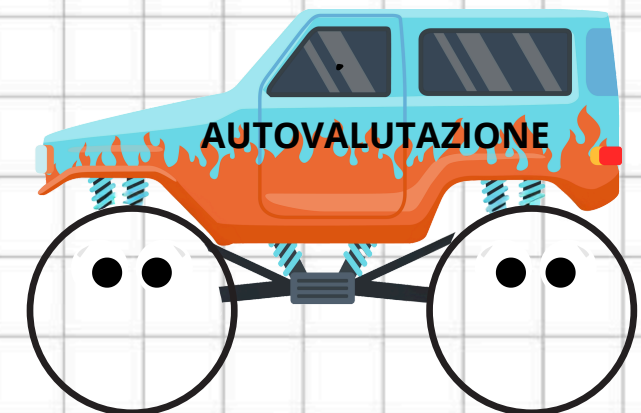
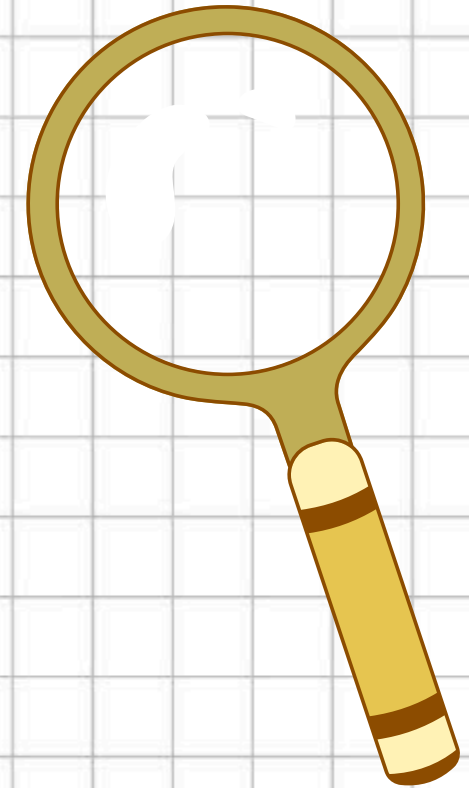
LA STANZA DEL FARAONE



Scacchiera 5×4
di quadratini uguali



a) Quanti quadrati ci sono?



POTENZA AL QUADRATO

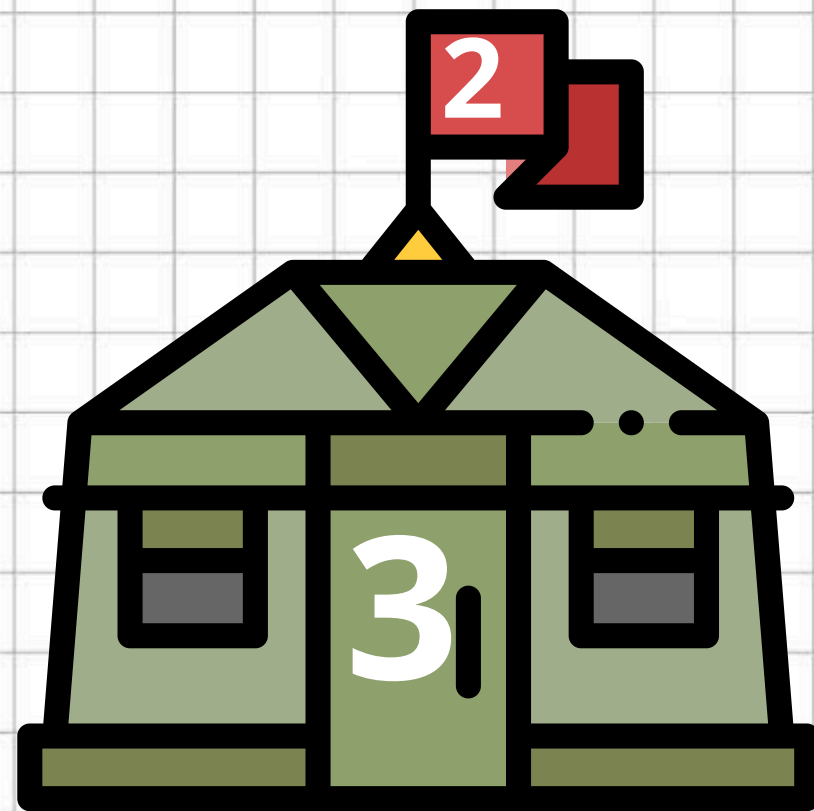
$$1^2 = 1 \times 1$$

$$2^2 = 2 \times 2$$

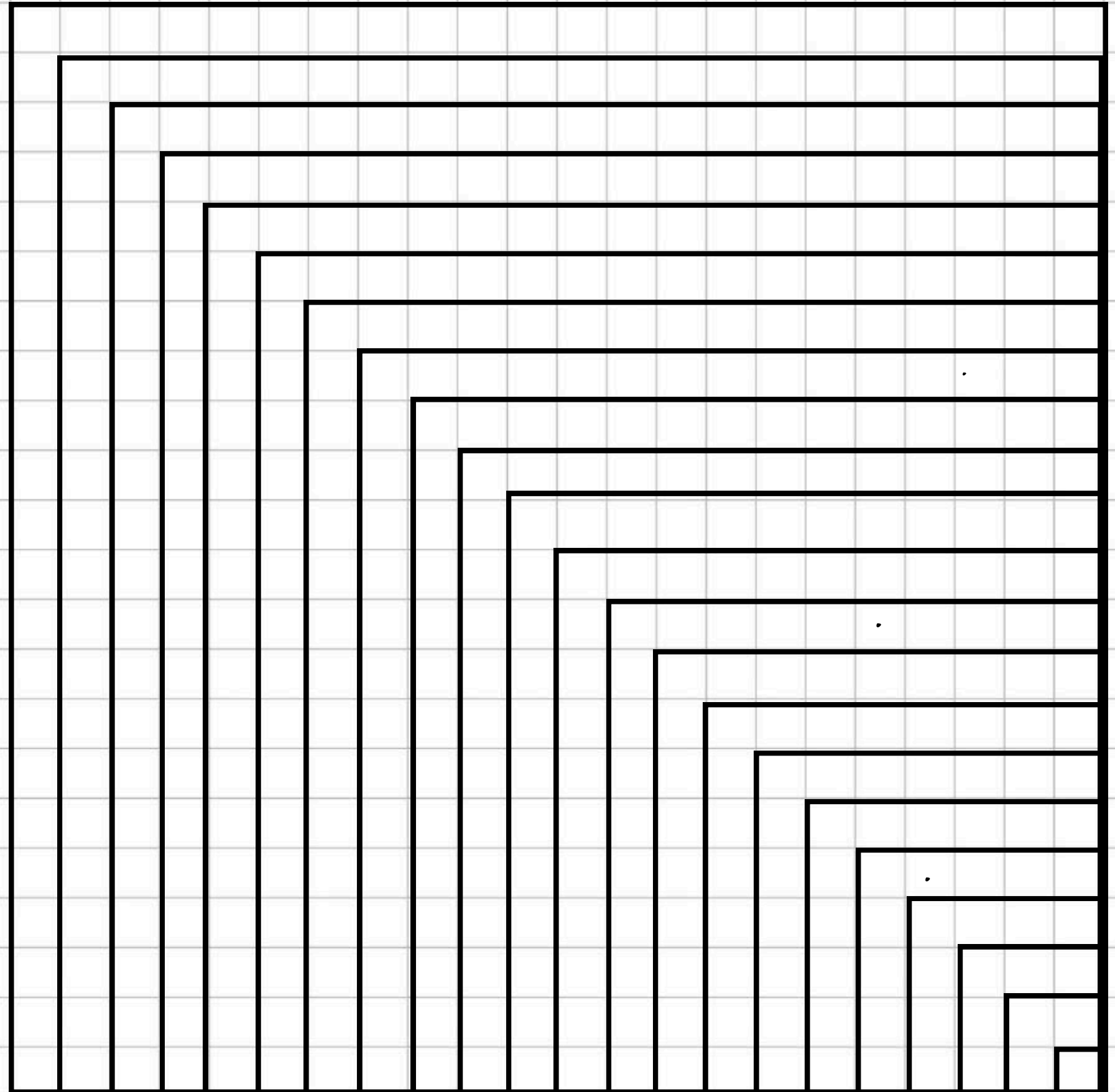
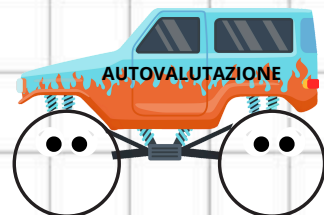
$$3^2 = 3 \times 3$$

$$4^2 = 4 \times 4$$

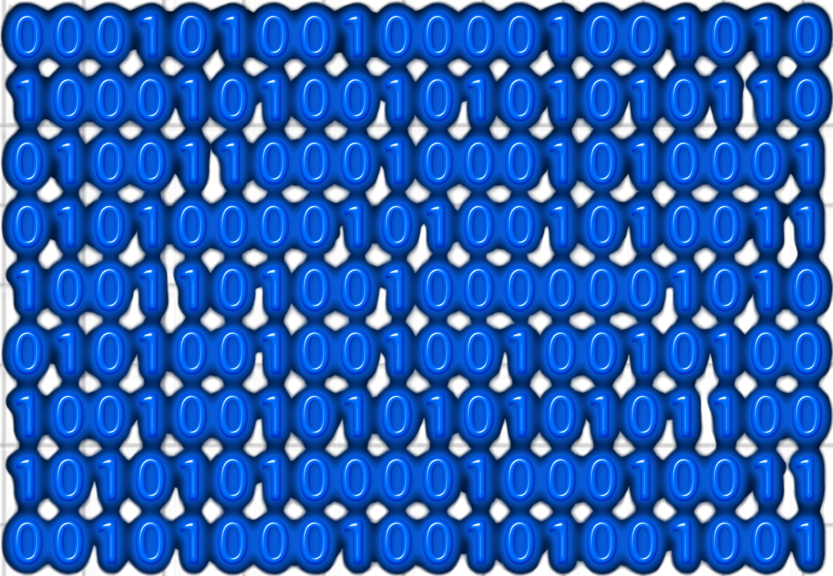
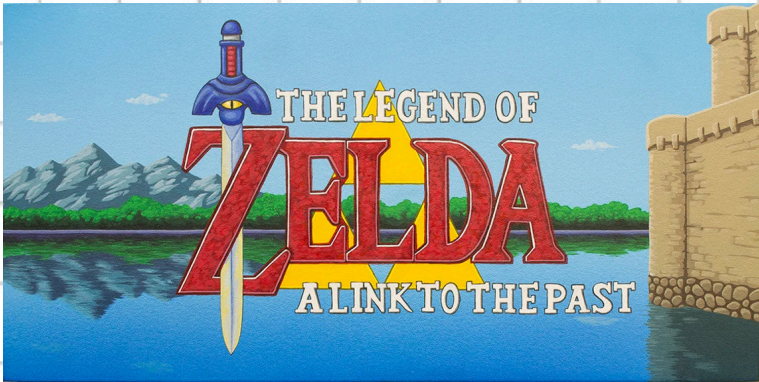
ESPONENTE



BASE

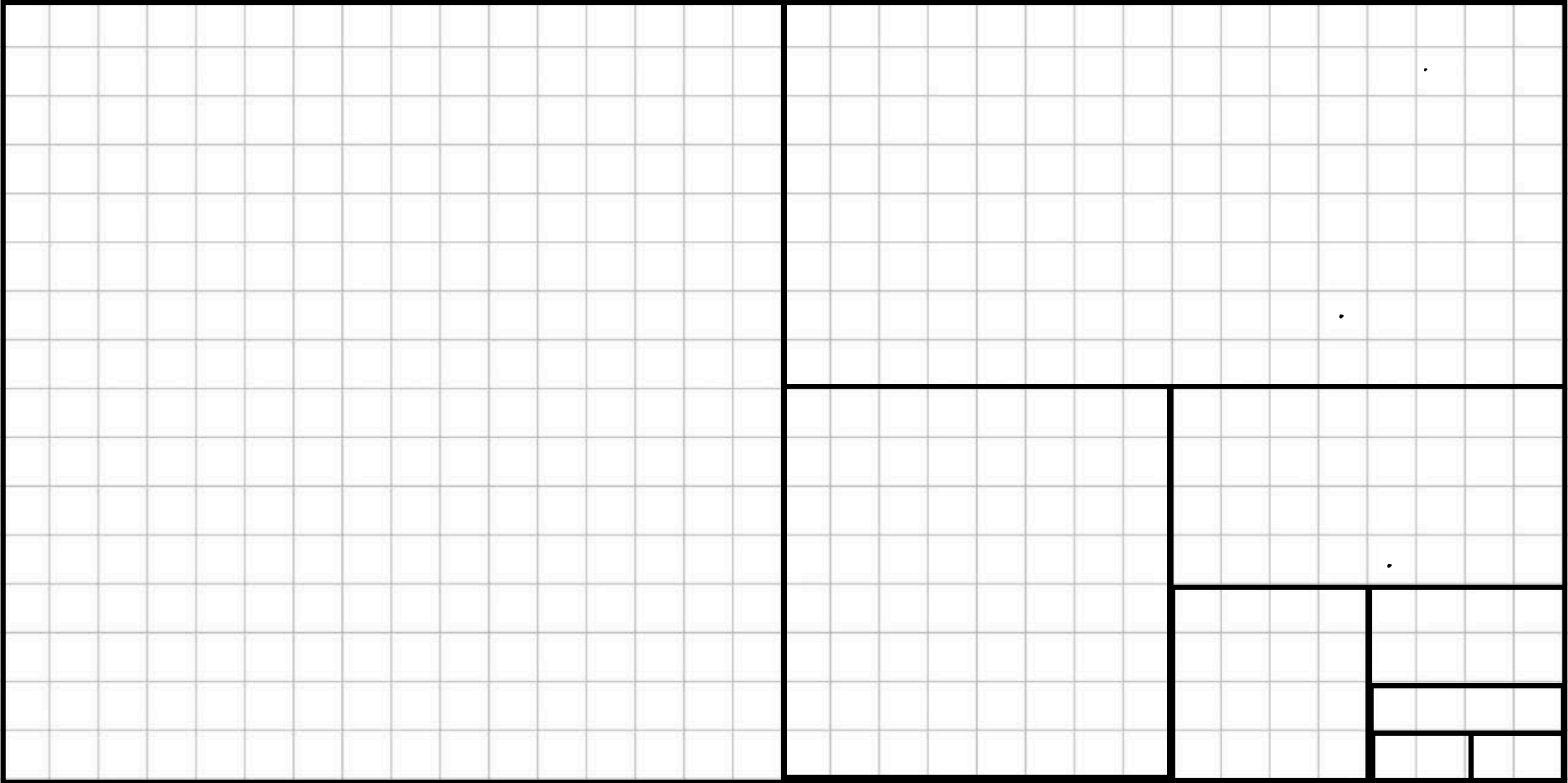
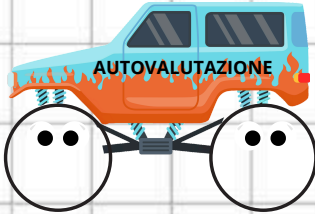


POTENZE BASE 2



Le prime quaranta potenze di due

2^1	=	2	2^{11}	=	2 048	2^{21}	=	2 097 152	2^{31}	=	2 147 483 648
2^2	=	4	2^{12}	=	4 096	2^{22}	=	4 194 304	2^{32}	=	4 294 967 296
2^3	=	8	2^{13}	=	8 192	2^{23}	=	8 388 608	2^{33}	=	8 589 934 592
2^4	=	16	2^{14}	=	16 384	2^{24}	=	16 777 216	2^{34}	=	17 179 869 184
2^5	=	32	2^{15}	=	32 768	2^{25}	=	33 554 432	2^{35}	=	34 359 738 368
2^6	=	64	2^{16}	=	65 536	2^{26}	=	67 108 864	2^{36}	=	68 719 476 736
2^7	=	128	2^{17}	=	131 072	2^{27}	=	134 217 728	2^{37}	=	137 438 953 472
2^8	=	256	2^{18}	=	262 144	2^{28}	=	268 435 456	2^{38}	=	274 877 906 944
2^9	=	512	2^{19}	=	524 288	2^{29}	=	536 870 912	2^{39}	=	549 755 813 888
2^{10}	=	1 024	2^{20}	=	1 048 576	2^{30}	=	1 073 741 824	2^{40}	=	1 099 511 627 776



GIOIOSA MA MOSTRUOSA!!!

TRY NOW

18764352X

0/4	3/2	2/8	2/4	1/6	1/2	2/0	0/8
0/5	4/0	3/5	3/0	2/0	1/5	2/5	1/0
0/9	7/2	6/3	5/4	3/6	2/7	4/5	1/8

459

...

?

8

6

1

2

8

3

7

5

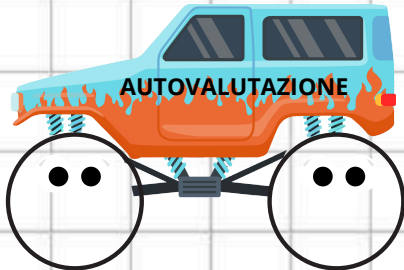
6

8

uno di questi risultati è giusto!

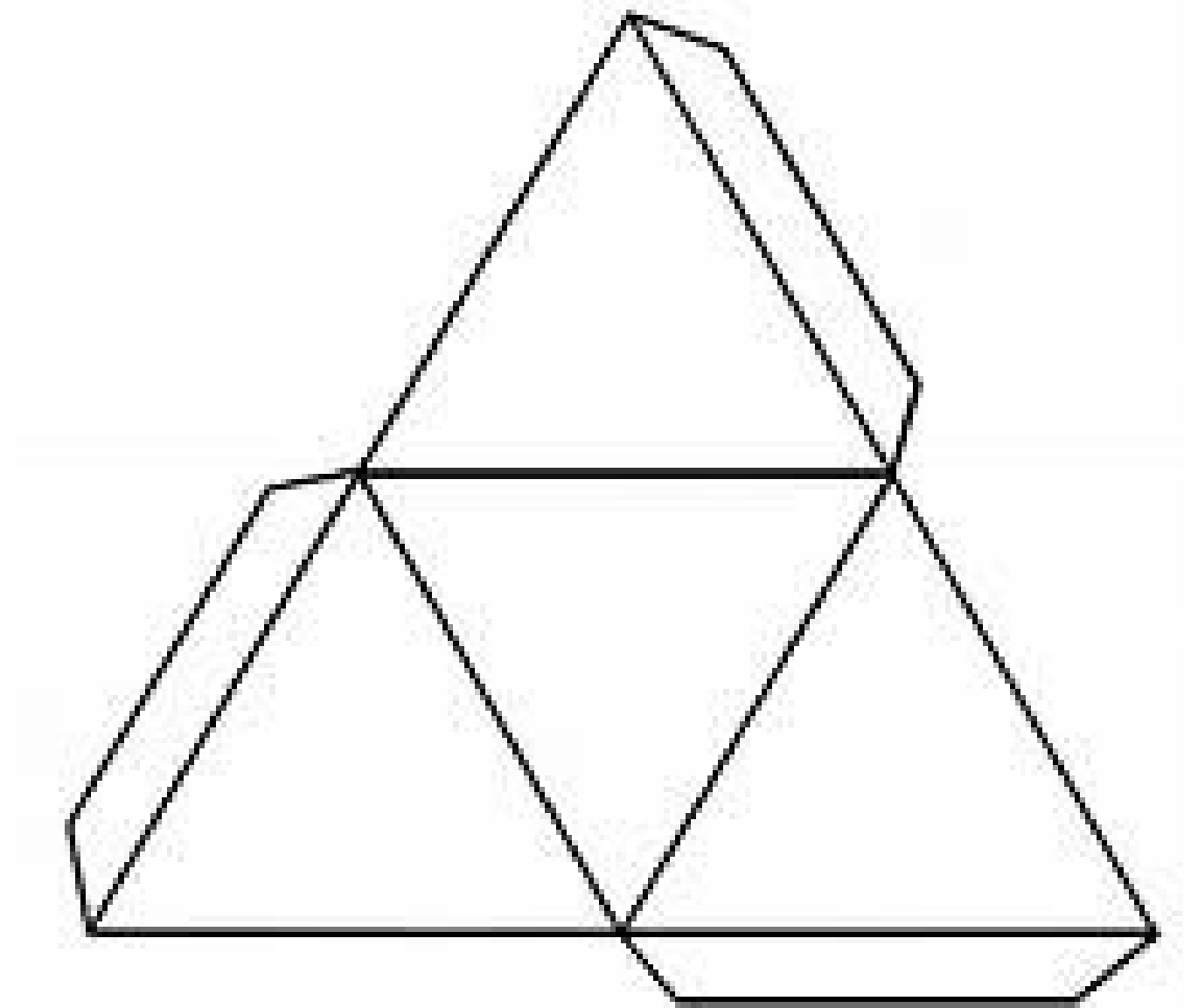
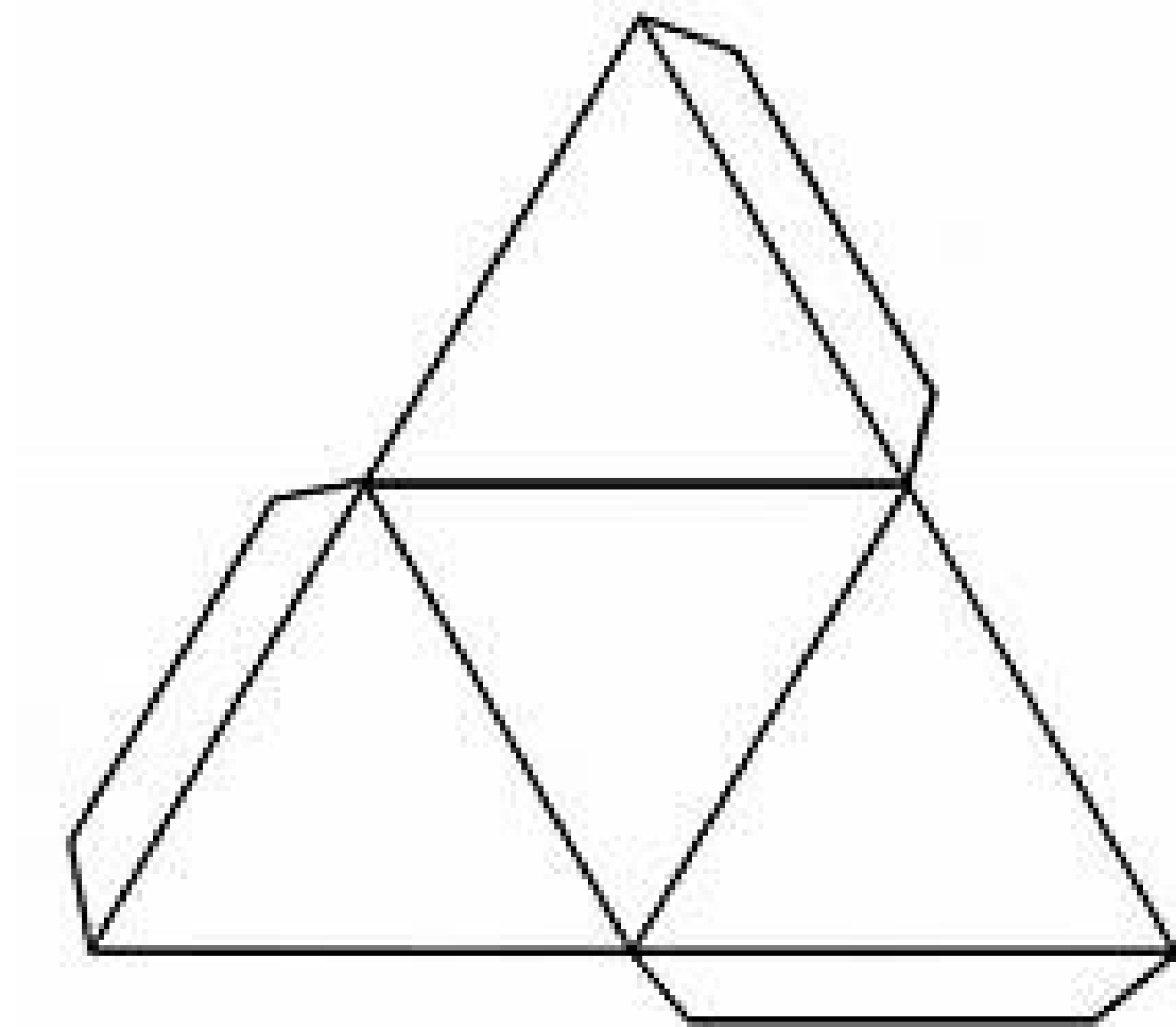
- MmK

8612837568
- 3.612.837.568
- 8.512.837.568
- 8.612.827.568
- 8.612.837.558
- 8.612.837.567
- 8.602.837.568
- 8.612.847.568
- 8.612.837.368
- 8.612.886.568



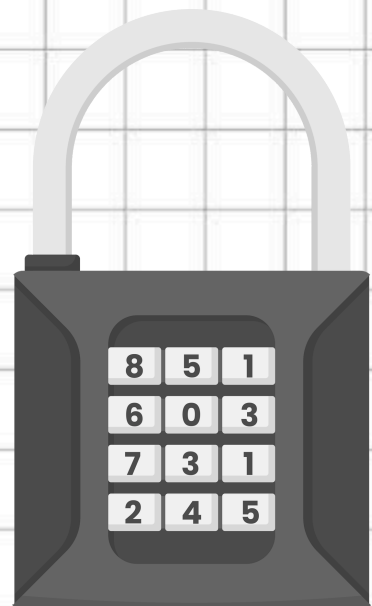
SVILUPPO PIRAMIDE (TETRAEDRO)

SVILUPPO PIRAMIDE (TETRAEDRO)

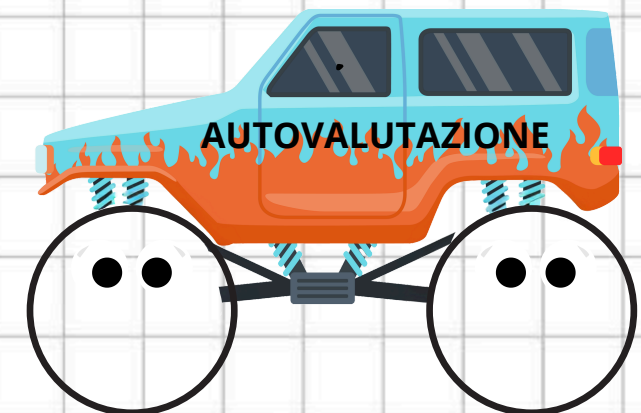


CHE COMBINAZIONE... UN FARAONE!

FATTORIALE N!



$$4! = 1 \times 2 \times 3 \times 4 = 24$$



FATTORIALI

n	fattoriale	n.ro cifre
1	1	1
2	2	1
3	6	1
4	24	2
5	120	3
6	720	3
7	5.040	4
8	40.320	5
9	362.880	6
10	3.628.800	7
11	39.916.800	8
12	479.001.600	9
13	6.227.020.800	10
14	87.178.291.200	11
15	1.307.674.368.000	13
16	20.922.789.888.000	14
17	355.687.428.096.000	15
18	6.402.373.705.728.000	16
19	121.645.100.408.832.000	18
20	2.432.902.008.176.640.000	19
21	51.090.942.171.709.440.000	20
22	1.124.000.727.777.607.680.000	22
23	25.852.016.738.884.976.640.000	23
24	620.448.401.733.239.439.360.000	24
25	15.511.210.043.330.985.984.000.000	26
26	403.291.461.126.605.635.584.000.000	27
27	10.888.869.450.418.352.160.768.000.000	29
28	304.888.344.611.713.860.501.504.000.000	30
29	8.841.761.993.739.701.954.543.616.000.000	31
30	265.252.859.812.191.058.636.308.480.000.000	33
31	8.222.838.654.177.922.817.725.562.880.000.000	34
32	263.130.836.933.693.530.167.218.012.160.000.000	36
33	8.683.317.618.811.886.495.518.194.401.280.000.000	37
34	295.232.799.039.604.140.847.618.609.643.520.000.000	39

FATTORIALI

n	fattoriale	n.ro cifre
1	1	1
2	2	1
3	6	1
4	24	2
5	120	3
6	720	3
7	5.040	4
8	40.320	5
9	362.880	6
10	3.628.800	7
11	39.916.800	8
12	479.001.600	9
13	6.227.020.800	10
14	87.178.291.200	11
15	1.307.674.368.000	13
16	20.922.789.888.000	14
17	355.687.428.096.000	15
18	6.402.373.705.728.000	16
19	121.645.100.408.832.000	18
20	2.432.902.008.176.640.000	19
21	51.090.942.171.709.440.000	20
22	1.124.000.727.777.607.680.000	22
23	25.852.016.738.884.976.640.000	23
24	620.448.401.733.239.439.360.000	24
25	15.511.210.043.330.985.984.000.000	26
26	403.291.461.126.605.635.584.000.000	27
27	10.888.869.450.418.352.160.768.000.000	29
28	304.888.344.611.713.860.501.504.000.000	30
29	8.841.761.993.739.701.954.543.616.000.000	31
30	265.252.859.812.191.058.636.308.480.000.000	33
31	8.222.838.654.177.922.817.725.562.880.000.000	34
32	263.130.836.933.693.530.167.218.012.160.000.000	36
33	8.683.317.618.811.886.495.518.194.401.280.000.000	37
34	295.232.799.039.604.140.847.618.609.643.520.000.000	39

DIVIDENDI

100	90	80	70	60	50	40	30	20	10	0	10
90	81	72	63	54	45	36	27	18	9	0	9
80	72	64	56	48	40	32	24	16	8	0	8
70	63	56	49	42	35	28	21	14	7	0	7
60	54	48	42	36	30	24	18	12	6	0	6
50	45	40	35	30	25	20	15	10	5	0	5
40	36	32	28	24	20	16	12	8	4	0	4
30	27	24	21	18	15	12	9	6	3	0	3
20	18	16	14	12	10	8	6	4	2	0	2
10	9	8	7	6	5	4	3	2	1	0	1
0	0	0	0	0	0	0	0	0	0	0	0
10	9	8	7	6	5	4	3	2	1	0	X

DIVISORI

QUOTO (PREZIO) QUOZIENTE (RESTO)

DIVIDENDI

100	90	80	70	60	50	40	30	20	10	0	10
90	81	72	63	54	45	36	27	18	9	0	9
80	72	64	56	48	40	32	24	16	8	0	8
70	63	56	49	42	35	28	21	14	7	0	7
60	54	48	42	36	30	24	18	12	6	0	6
50	45	40	35	30	25	20	15	10	5	0	5
40	36	32	28	24	20	16	12	8	4	0	4
30	27	24	21	18	15	12	9	6	3	0	3
20	18	16	14	12	10	8	6	4	2	0	2
10	9	8	7	6	5	4	3	2	1	0	1
0	0	0	0	0	0	0	0	0	0	0	0
10	9	8	7	6	5	4	3	2	1	0	X

DIVISORI

QUOTO (PREZIO) QUOZIENTE (RESTO)

DIVISIONE TABELLARE

$$55 : 7 = 7 \text{ R } 6$$

$$47 : 6 = 7 \text{ R } 5$$

$$45 : 5 = 9$$

$$40 : 4 = 10$$

$$93 : 9 = 10 \text{ R } 3$$

$$27 : 3 = 9$$

$$43 : 6 = 7 \text{ R } 1$$

$$56 : 7 = 8$$

$$63 : 9 = 7$$

$$74 : 10 = 7 \text{ R } 4$$

DIVIDENDI

	90	80	70	60	50	40	30	20	10	0	10
90	81	72	63	54	45	36	27	18	9	0	9
80	72	64	56	48	40	32	24	16	8	0	8
70	63	56	49	42	35	28	21	14	7	0	7
60	54	48	42	36	30	24	18	12	6	0	6
50	45	40	35	30	25	20	15	10	5	0	5
40	36	32	28	24	20	16	12	8	4	0	4
30	27	24	21	18	15	12	9	6	3	0	3
20	18	16	14	12	10	8	6	4	2	0	2
10	9	8	7	6	5	4	3	2	1	0	1
0	0	0	0	0	0	0	0	0	0	0	0
10	9	8	7	6	5	4	3	2	1	0	X

DIVISORI

COESTO (PREZIO) QUOTIENTE (RESID)



CHUNKING METHOD (METODO DEI MULTIPLI)

Dndo	Dvsr
Rst	Quto Qznte

52	21
10	2

530	80
50	6

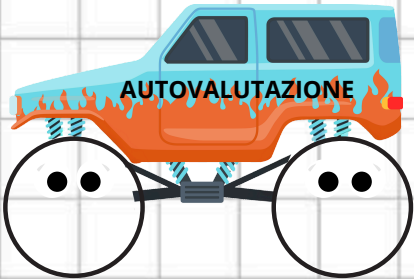
785	100
85	7

x2	x3	x4
x5	x6	x7
x8	x9	x10

42	63	4
5	6	7
8	9	10

160	240	320
400	480	7
8	9	10

200	300	400
500	600	700
800	900	1000



CHUNKING METHOD (METODO DEI MULTIPLI)

1) TROVA I MULTIPLI DEL DIVISORE

DIVIDENDO | DIVISORE $\times 1$

$\times 2$	$\times 3$	$\times 4$
$\times 5$	$\times 6$	$\times 7$
$\times 8$	$\times 9$	$\times 10$

2) SOTTRAILI AL DIVIDENDO

$$\begin{array}{r|l} 361 & 21 \\ 210 & 10 \\ \hline 151 & 7 \\ & 4 \\ & 17 \end{array}$$

$\times 2$	$\times 3$	$\times 4$
$\times 5$	$\times 6$	$\times 7$
$\times 8$	$\times 9$	$\times 10$

$\times 1 = 21$
 $\times 2 = 42$
 $\times 3 = 63$
 $\times 4 = 84$
 $\times 5 = 105$
 $\times 6 = 126$
 $\times 7 = 147$
 $\times 8 = 168$
 $\times 9 = 189$
 $\times 10 = 210$

$$\begin{array}{r|l} 2513 & 101 \\ 1010 & 10 \\ \hline 1503 & 10 \\ 1010 & 4 \\ \hline 493 & \end{array}$$

$\times 2$	$\times 3$	$\times 4$
$\times 5$	$\times 6$	$\times 7$
$\times 8$	$\times 9$	$\times 10$

CHUNKING METHOD (METODO DEI MULTIPLI)

$$\begin{array}{r|l} 30 & 6 \\ \hline & 5 \end{array}$$

$$\begin{array}{r|l} 52 & \textcircled{7} \\ \hline & 7 \end{array}$$

$$\begin{array}{r|l} 75 & 8 \\ \hline & 9 \end{array}$$

$$\begin{array}{r|l} 35 & 9 \\ \hline & 3 \end{array}$$

DIVIDENDI											QUOTO (PRESO) QUOZIENTE (RESTO)
100	90	80	70	60	50	40	30	20	10	0	
90	81										8
80	72										7
70	63										6
60	54										5
50	45										4
40	36										3
30	27										2
20	18										1
10	9										0
0	0										0
DIVISORI											X
10	9	8	7	6	5	4	3	2	1	0	

$$\begin{array}{r|l} 275 & 10 \\ \hline 175 & 10 \\ 75 & 10 \\ 5 & 7 \end{array} \left. \begin{array}{l} \\ \\ \\ \end{array} \right\} 27$$

$$\begin{array}{r|l} 83 & \textcircled{12} \\ \hline & 6 \end{array}$$

$$\begin{array}{r|l} 125 & \textcircled{23} \\ \hline & 5 \end{array}$$

$$\begin{array}{r|l} 250 & 31 \\ \hline & 8 \end{array}$$

$$2513 \overline{) 101}$$

20	30	40
50	60	70
80	90	100

24	36	48
60	72	84
96	108	120

46	69	92
115	138	161
184	207	230

62	93	124
155	186	217
248	279	310

2	3	4
5	6	7
8	9	10





Brain test

$$9 = 90$$

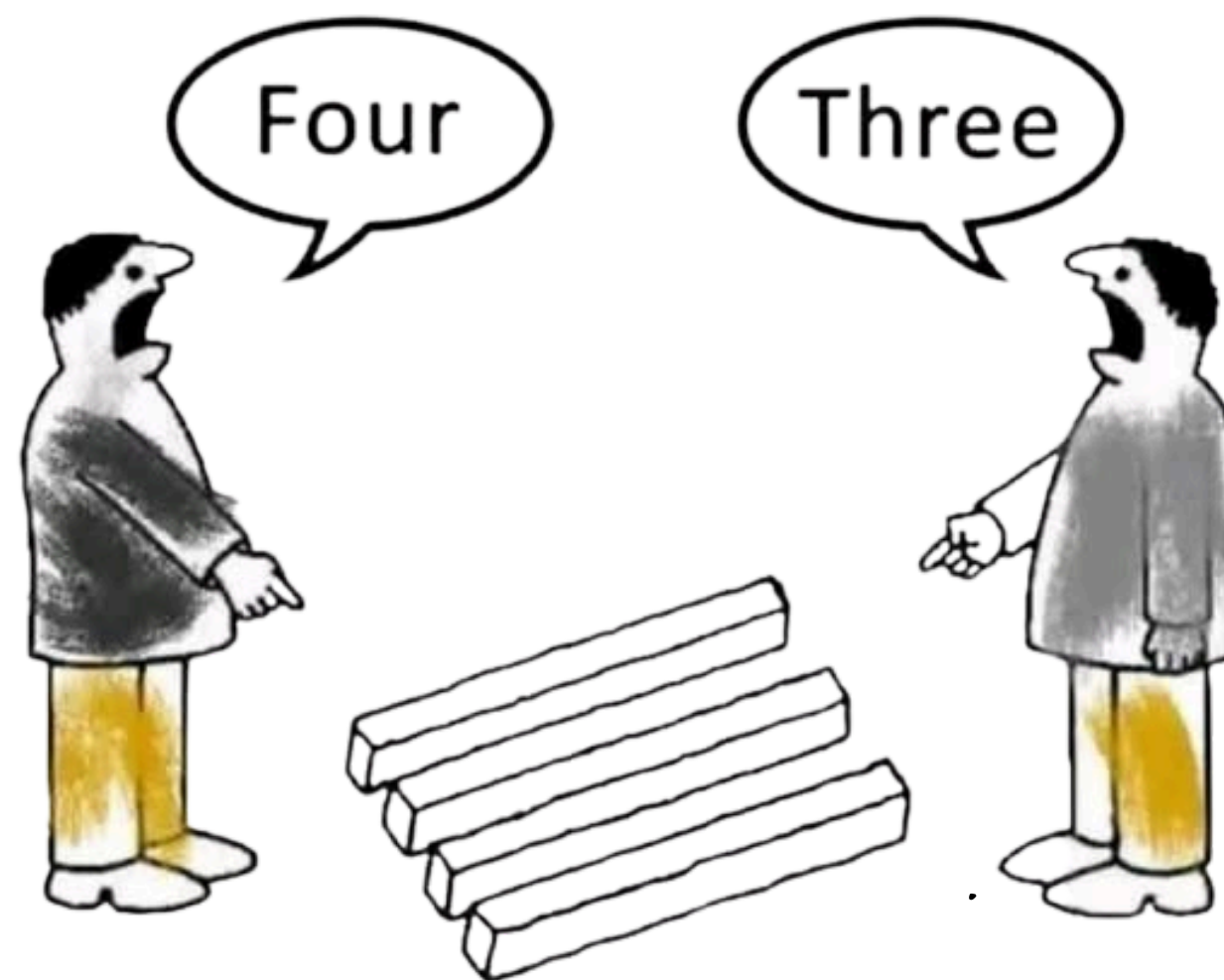
$$8 = 72$$

$$7 = 56$$

$$6 = 42$$

$$3 = ?$$

This is really confusing!!



CHUNKING METHOD (METODO DEI MULTIPLI)

48	12	96	17	73	10
=	4	11	5	3	7

253	50	198	20	2300	100
3	5	18	9	1000	10
				1000	10
					3

