



**CENTRO
DIFFUSIONE
ORIGAMI**

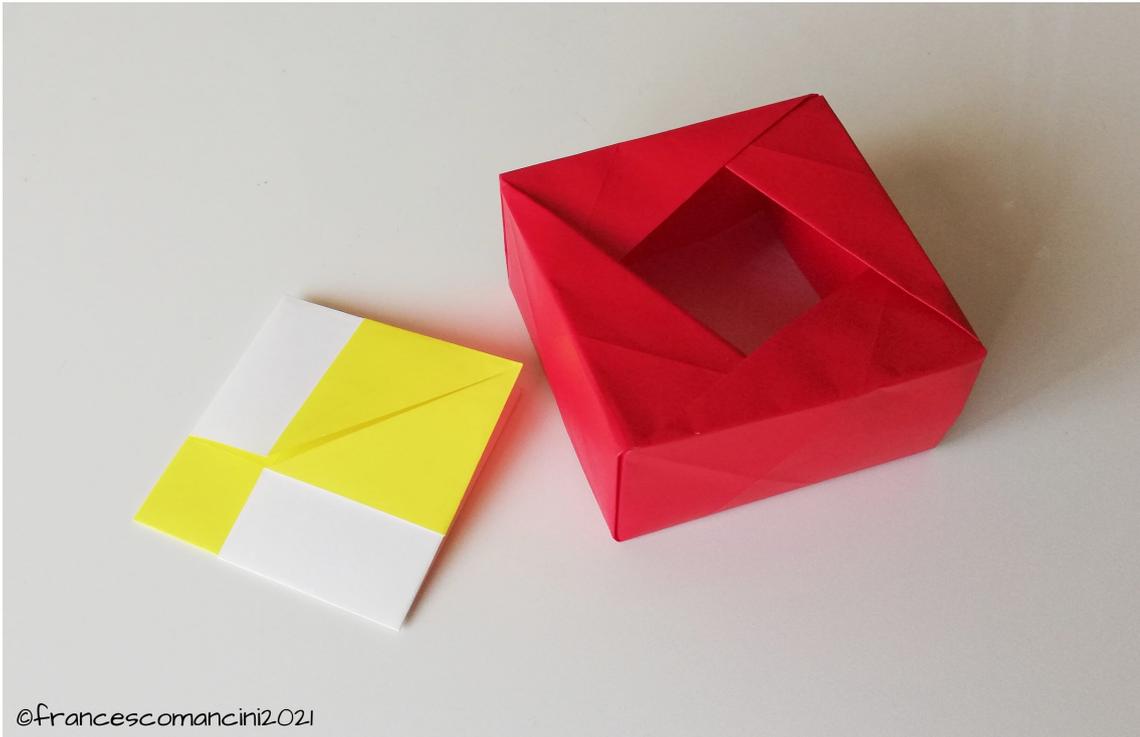


RITORNO AL QUADRATO

2 GIUGNO 2021

FRANCESCO MANCINI

KIT DEL PICCOLO ORIGAMISTA ALGEBRISTA EUCLIDEO

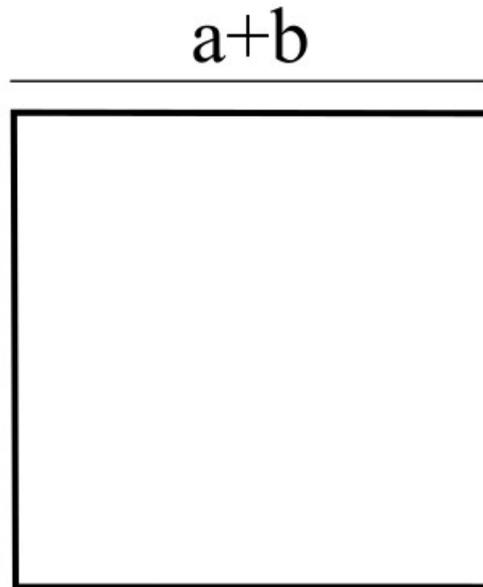
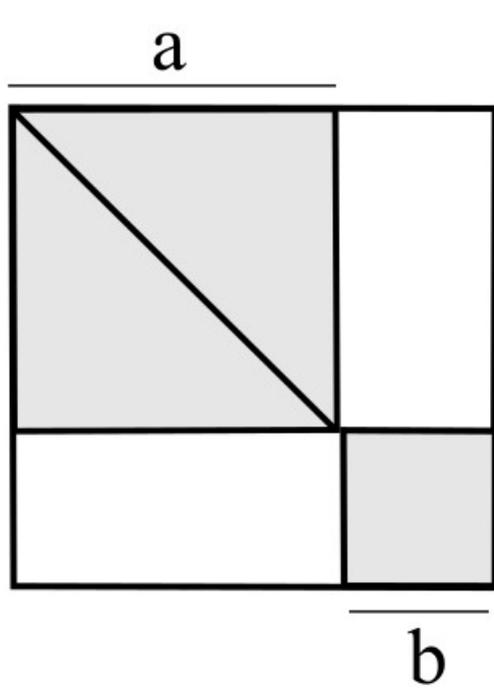


Gesuiti euclidei/
vestiti come bonzi per entrare
a corte degli imperatori/
della dinastia dei Ming/

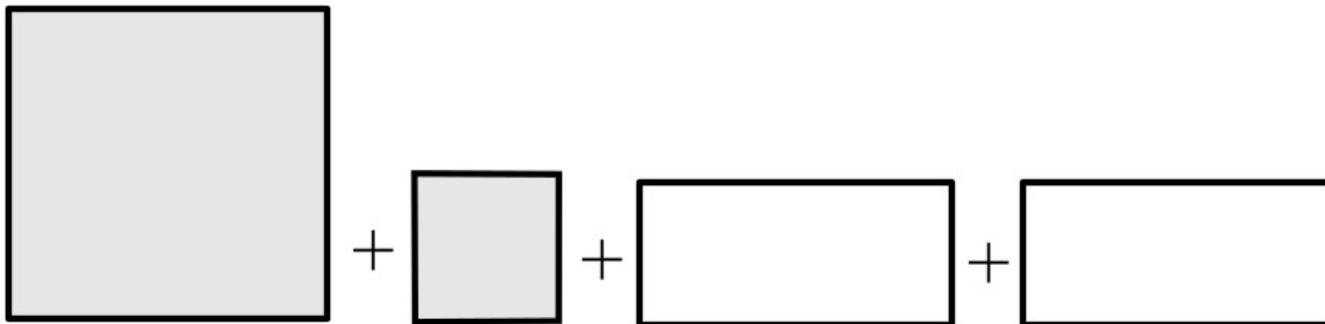
F.Battiato

Segnalibro del binomio e Scatola “elementare”

QUADRATO DELLA SOMMA



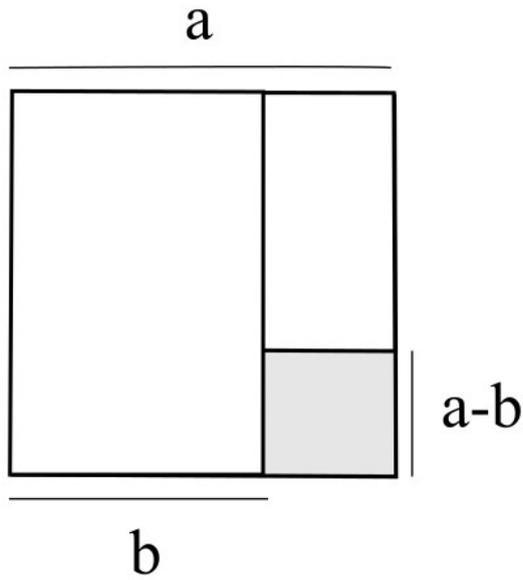
$$A=(a+b)^2$$



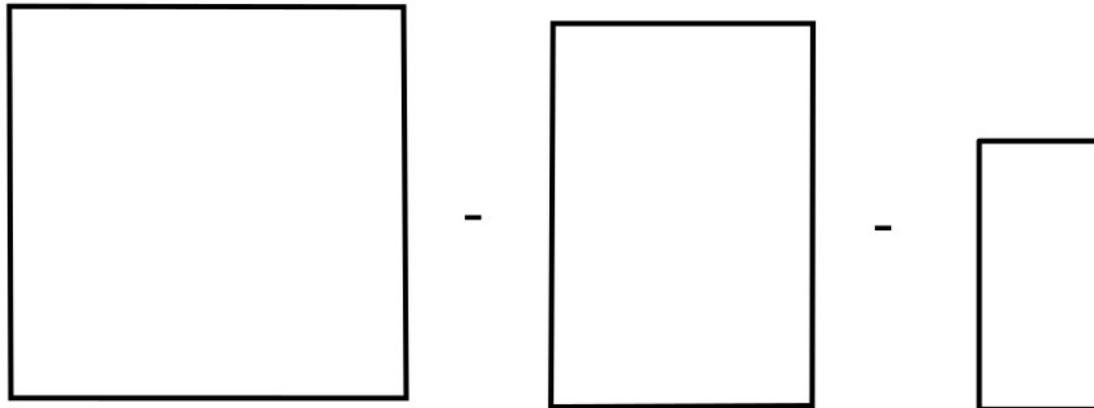
$$A=a^2+b^2+ab+ab$$

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

QUADRATO DELLA DIFFERENZA



$$A = (a-b)^2$$



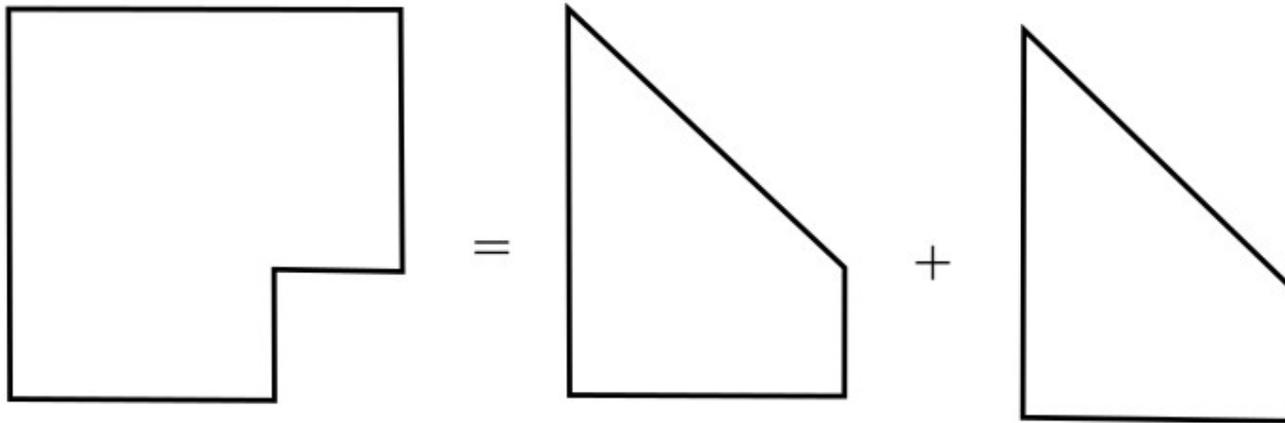
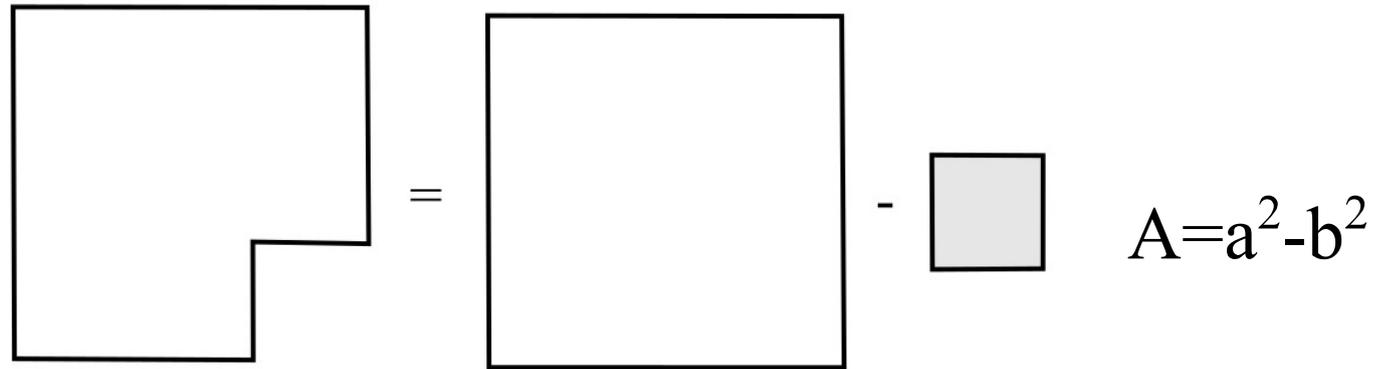
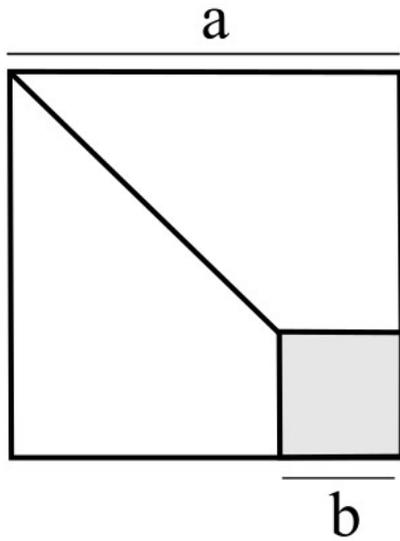
$$A = a^2 - ab - b(a-b)$$

$$\downarrow$$
$$A = a^2 - ab - ab + b^2$$

$$\downarrow$$
$$A = a^2 - 2ab + b^2$$

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

DIFFERENZA DI QUADRATI



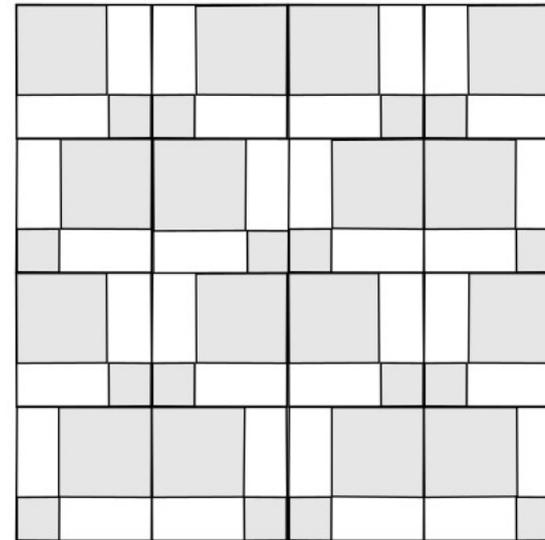
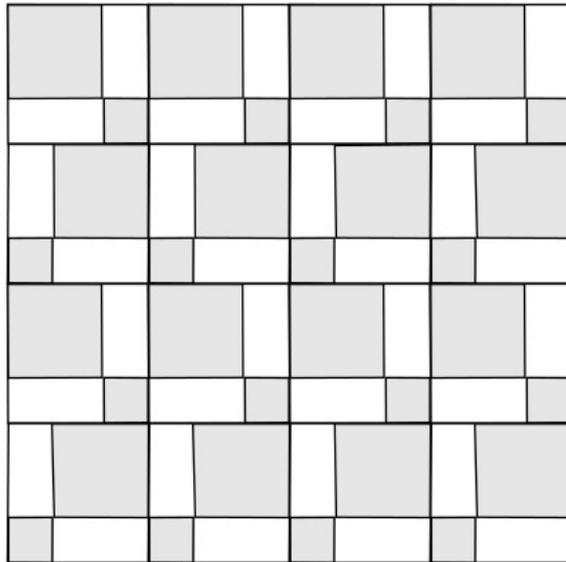
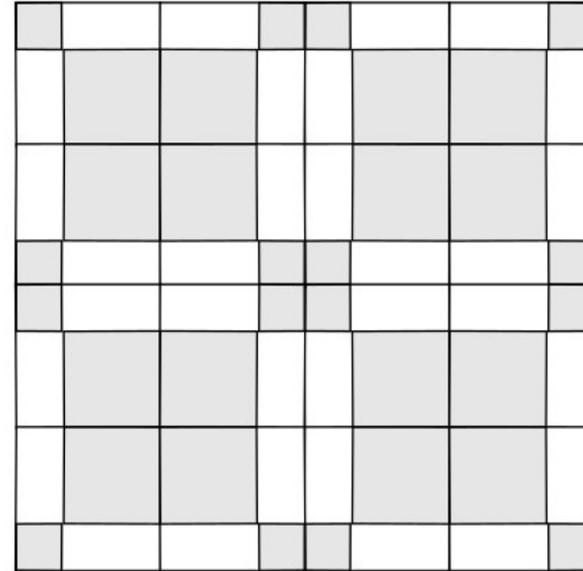
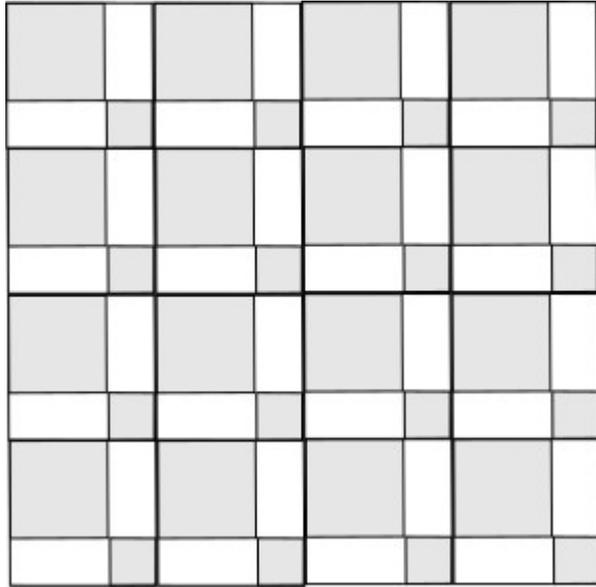
$$A = \frac{2(a+b)(a-b)}{2}$$

↓

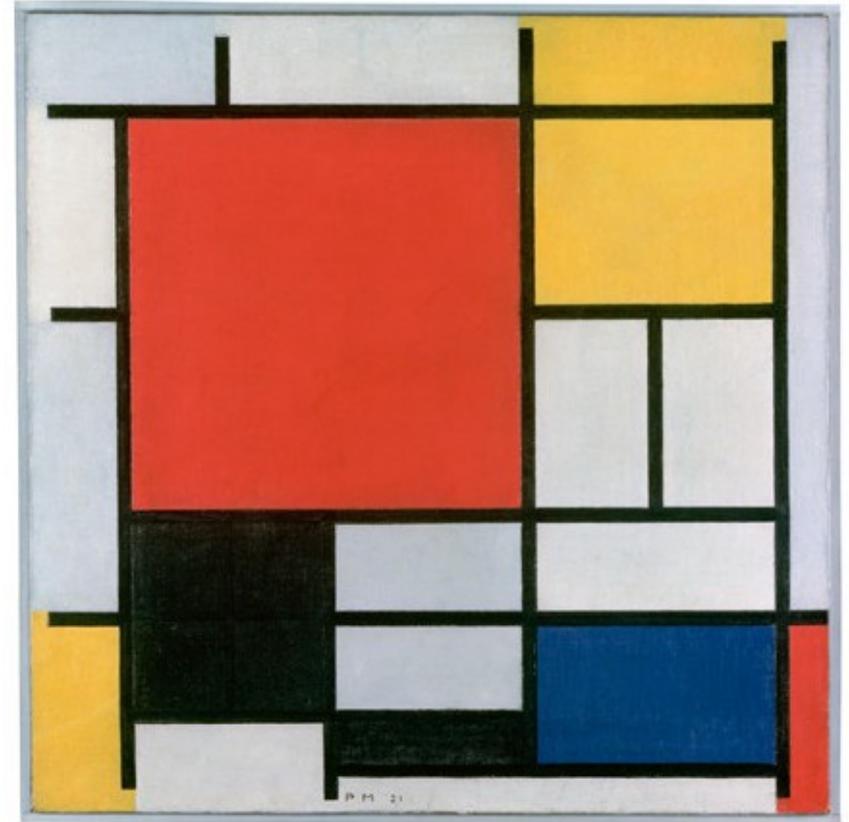
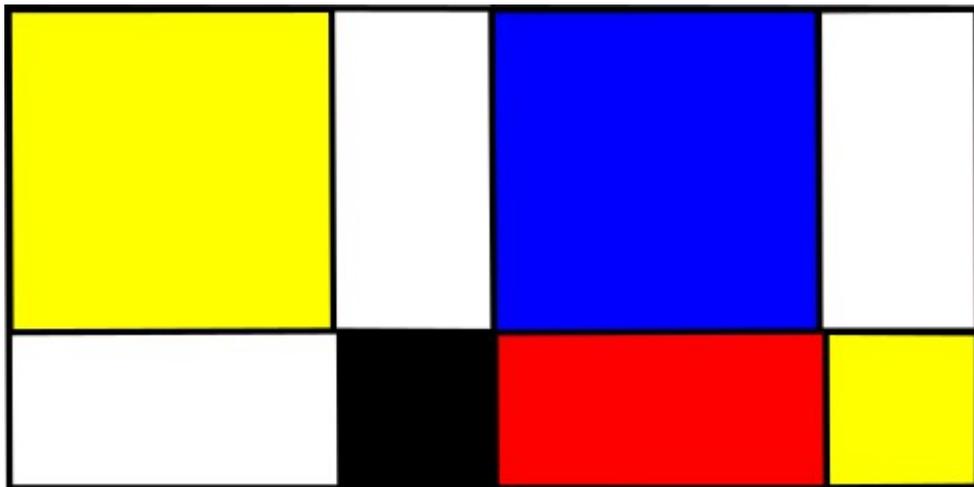
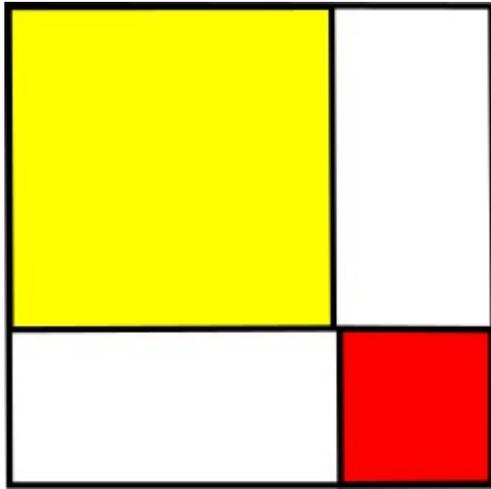
$$A = (a+b)(a-b)$$

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

PAVIMENTI DI QUADRATI



QUADRATI DI MONDRIAN

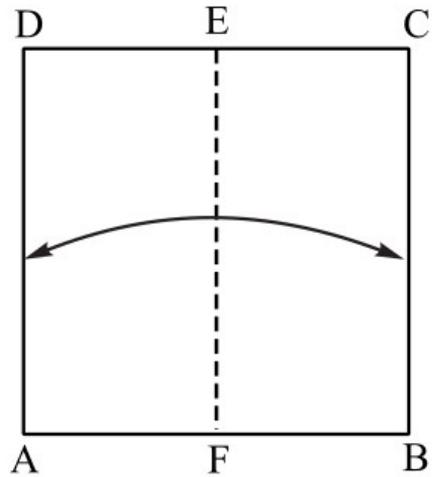


Piet Mondrian (1872-1944)
Composition with Large Red Plane,
Yellow, Black, Gray and Blue, 1921

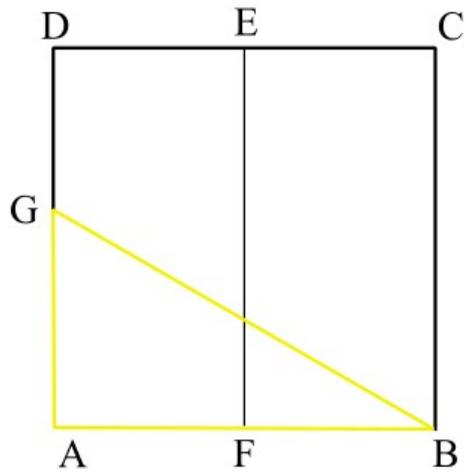
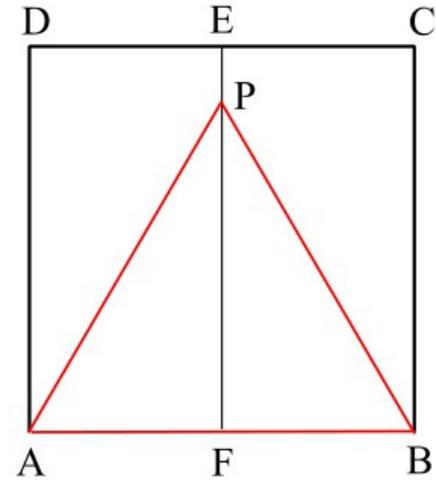
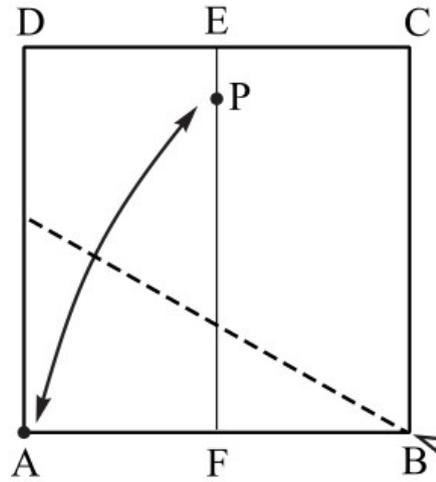
TRIANGOLO EQUILATERO



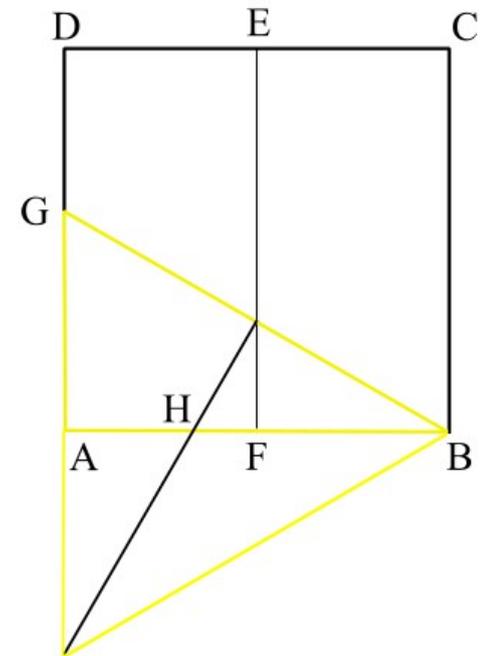
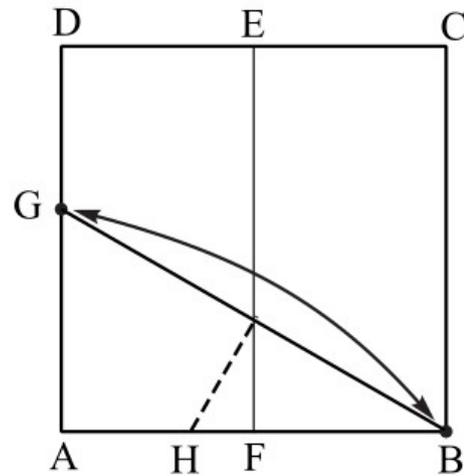
1



2



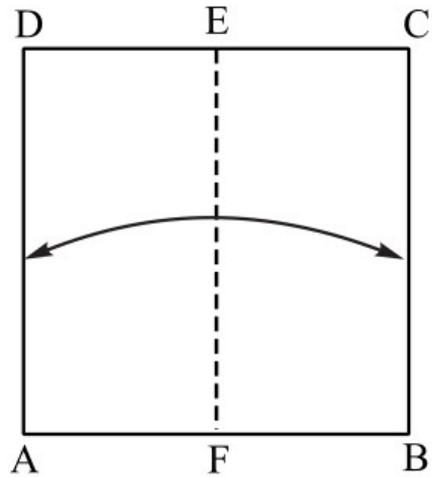
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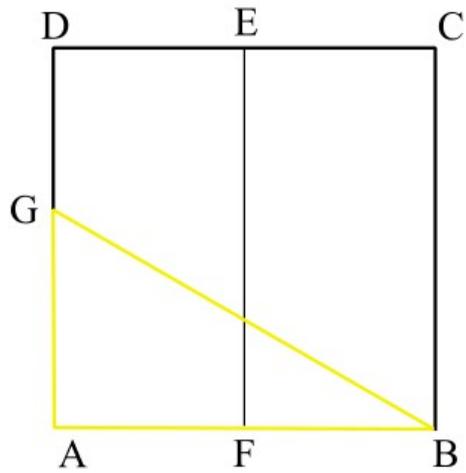
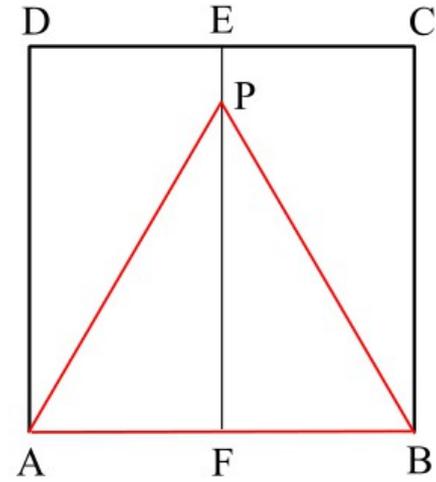
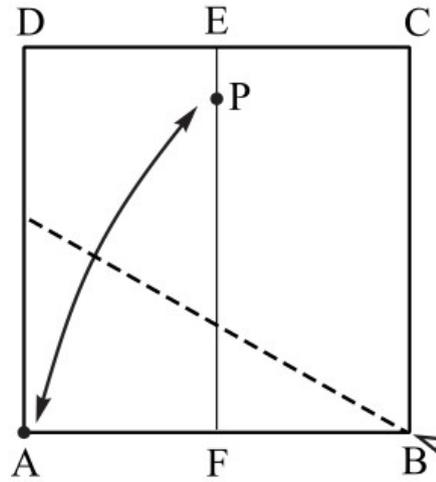
TRIANGOLO EQUILATERO



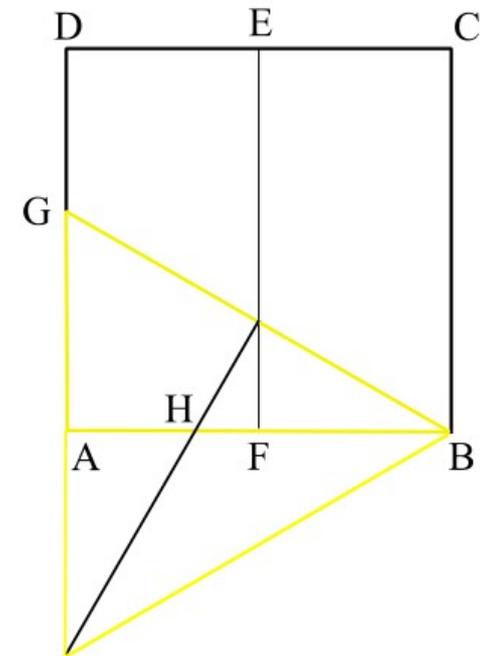
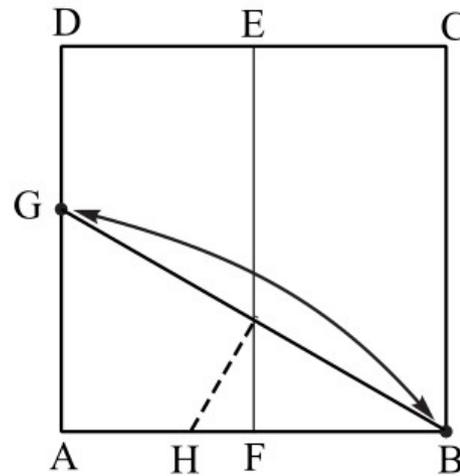
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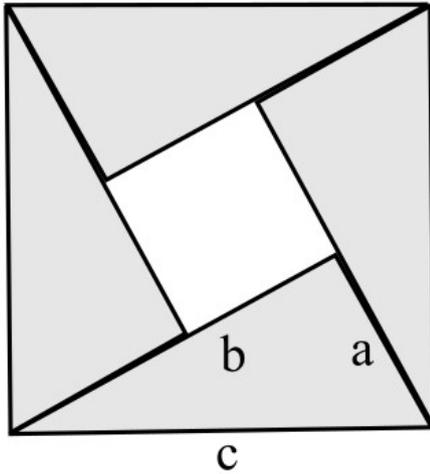
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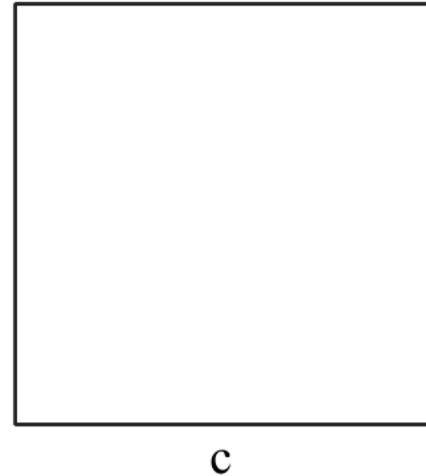
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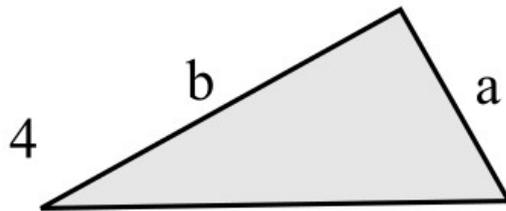
TEOREMA DI PITAGORA



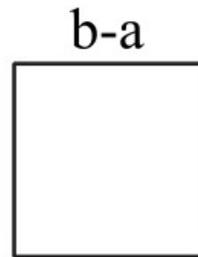
E' un quadrato?



$$A=c^2$$



+



$$A=4 \frac{ab}{2} + (b-a)^2$$



$$A=2ab+b^2+a^2-2ab$$



$$A=a^2+b^2$$

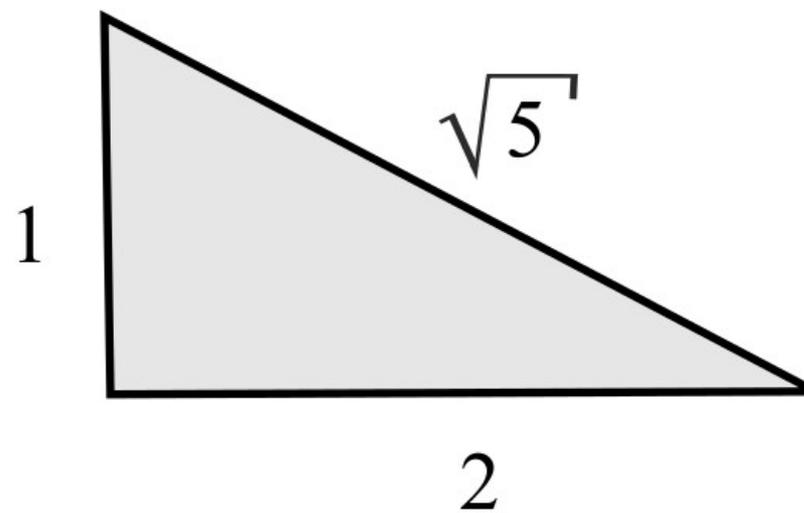
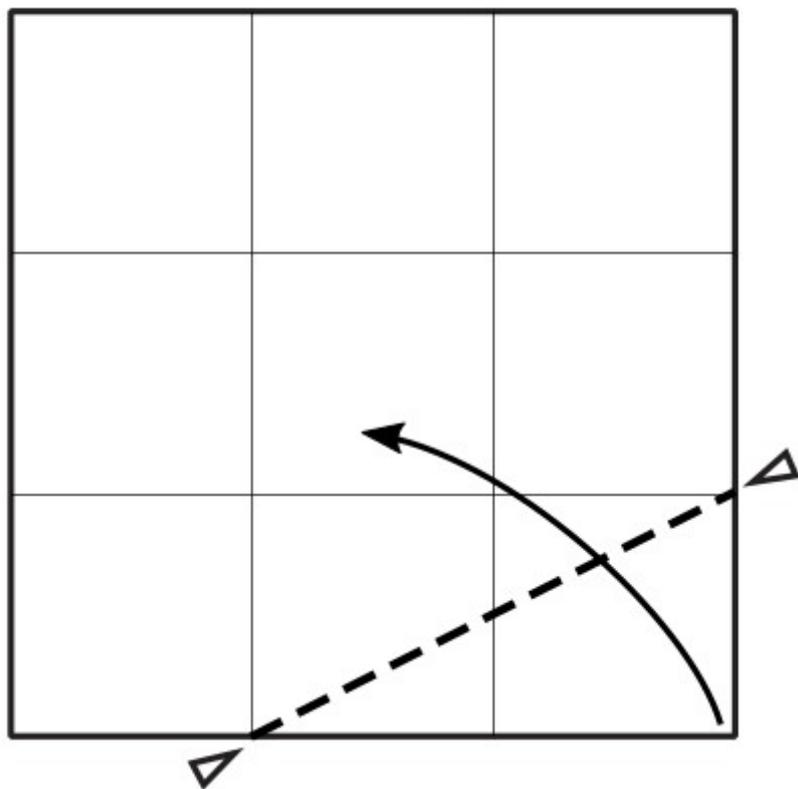
$$c^2=a^2+b^2$$

Pitagora!

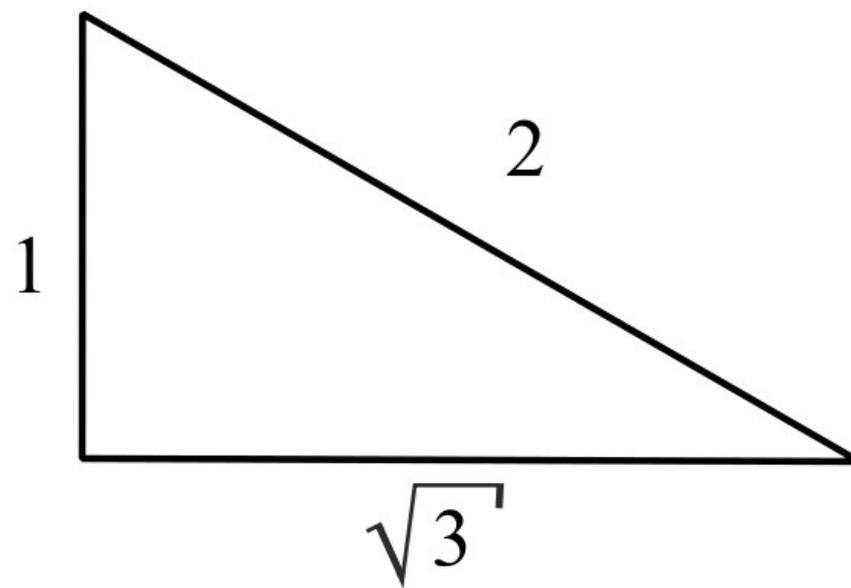
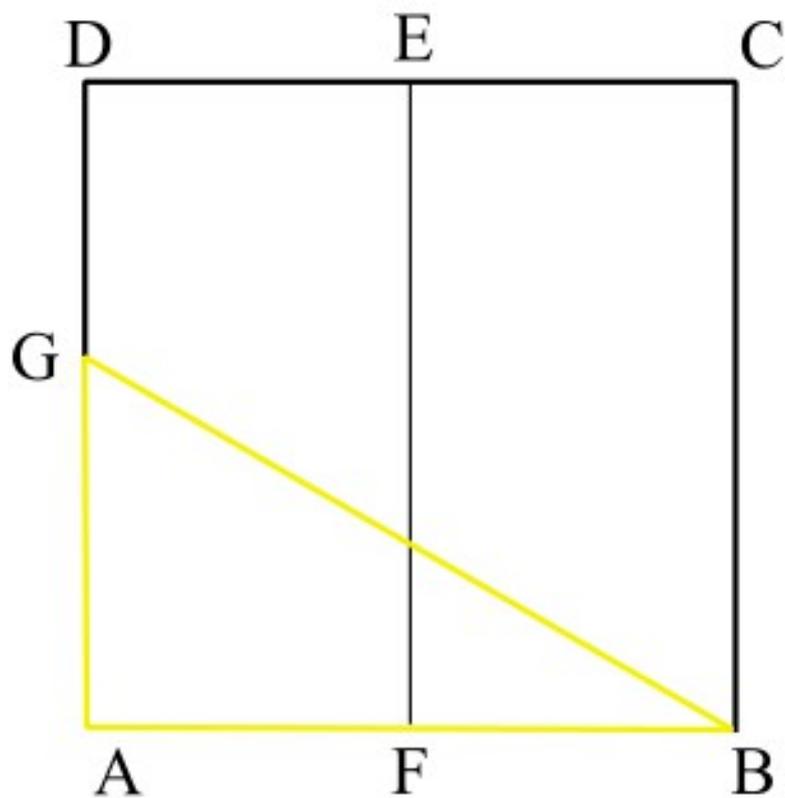
PITAGORA ALL'OPERA



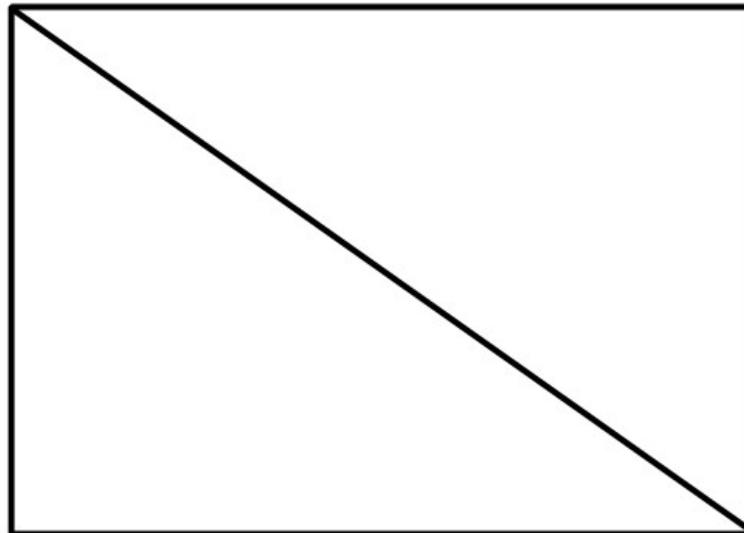
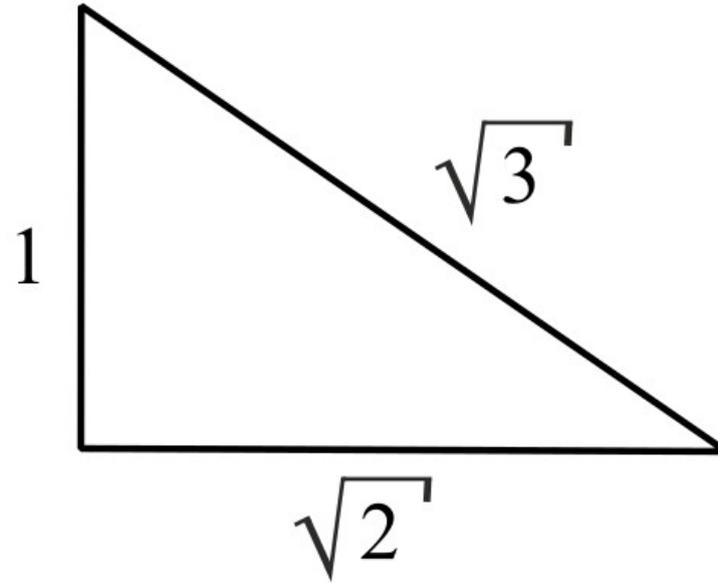
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PITAGORA ALL'OPERA

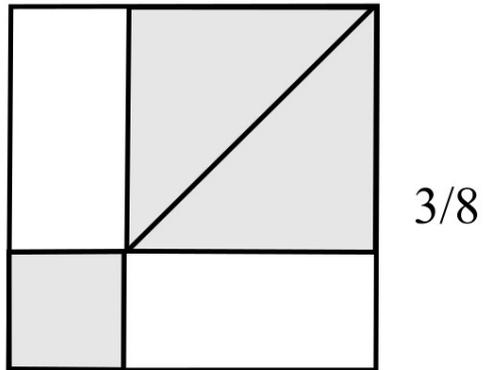
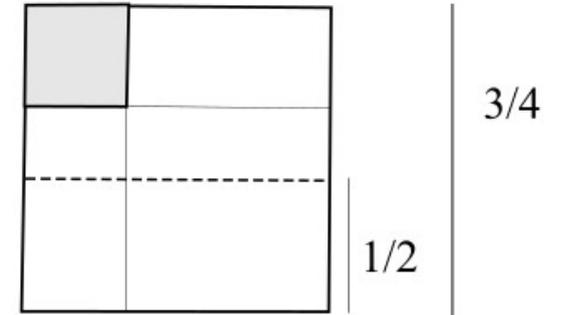
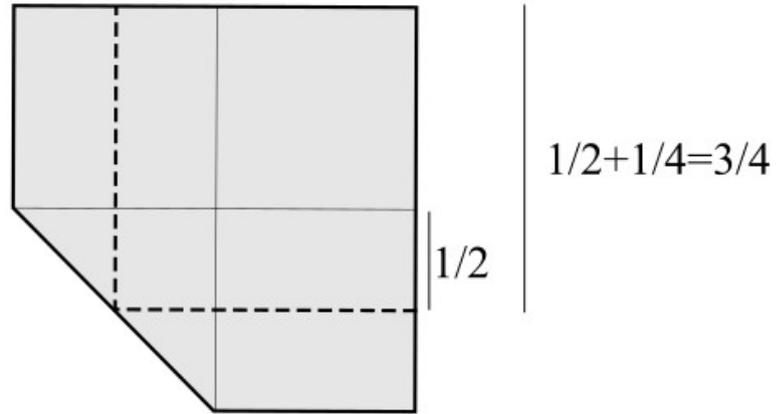
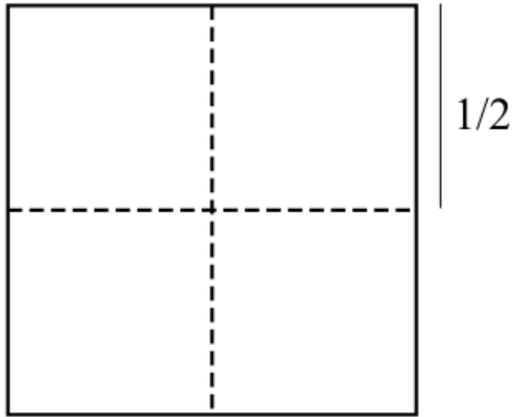


PITAGORA ALL'OPERA

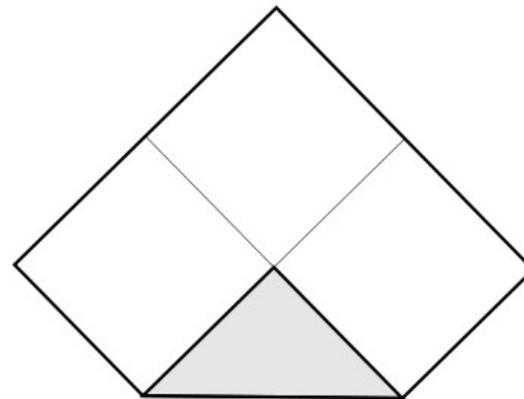


Formato A

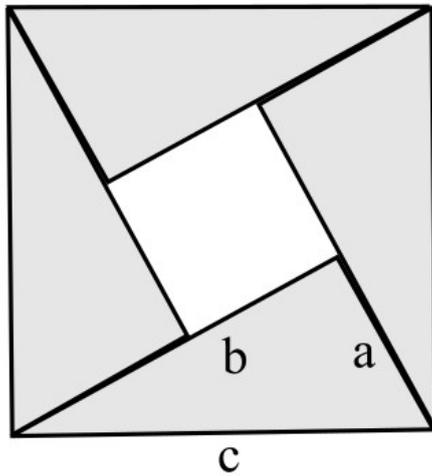
FRAZIONI



E i quadrati?



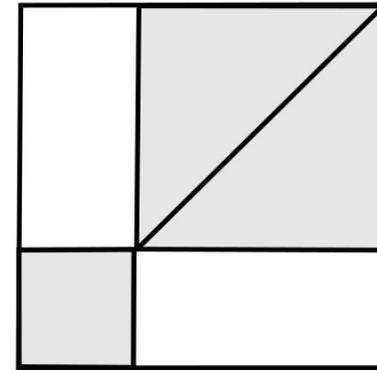
CONFRONTO FRA FRAZIONI



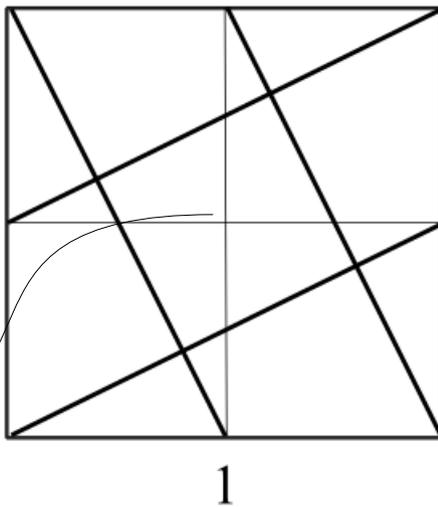
$$(b-a)^2 = 1/9$$

$$L = 1/3$$

$$L = 3/9$$



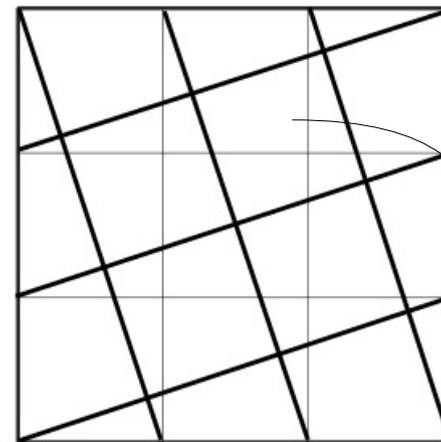
3/8



1/2

1

?



1/3

1

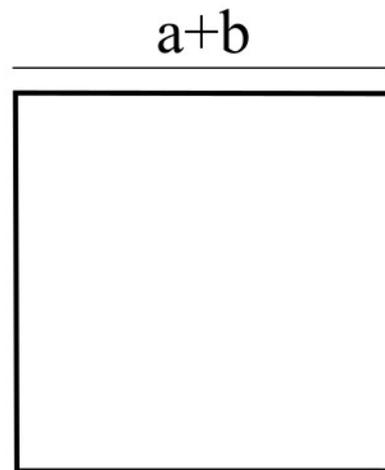
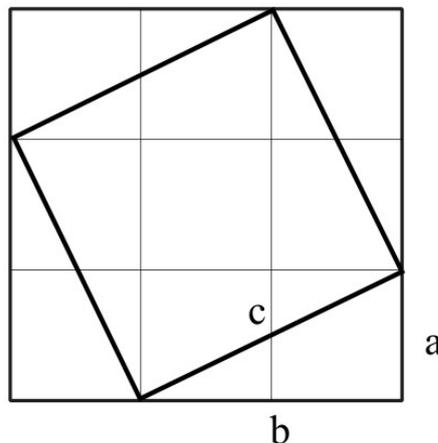
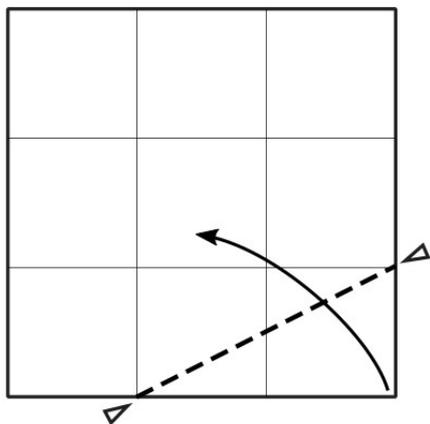
?

4x4?

ANCORA PITAGORA

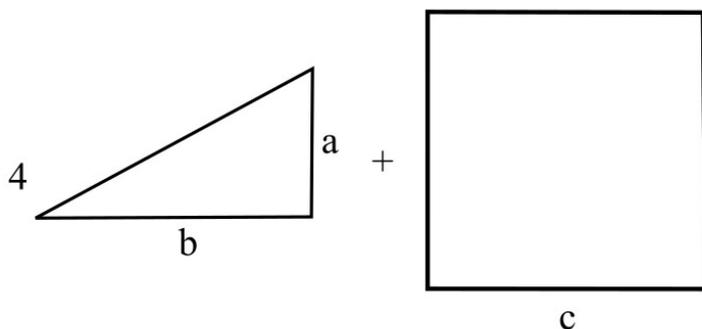


9



$$A=(a+b)^2$$

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



$$A=4 \frac{ab}{2} + c^2 \longrightarrow A=2ab+c^2$$

$$2ab+c^2=a^2+b^2+2ab$$



$$c^2=a^2+b^2+2ab-2ab$$

$$c^2=a^2+b^2$$



***ESISTONO DUE CATEGORIE DI PERSONE:
QUELLE CHE AMANO LA MATEMATICA
E QUELLE CHE ANCORA NON SANNO DI AMARLA.***

MMACA

***ESISTONO DUE CATEGORIE DI PERSONE:
QUELLE CHE AMANO L'ORIGAMI
E QUELLE CHE ANCORA NON SANNO DI AMARLO.***

FM

GRAZIE

SITOGRAFIA



<https://www.mondoemissione.it/cultura/franco-battiato-e-i-gesuiti-euclidei/>

<https://web.math.unifi.it/users/ottavian/euclidel/euclidel.htm>

https://link.springer.com/chapter/10.1007/978-3-030-61570-3_7

<http://jwilson.coe.uga.edu/squareF/square.html>

<http://web.math.unifi.it/archimede/>