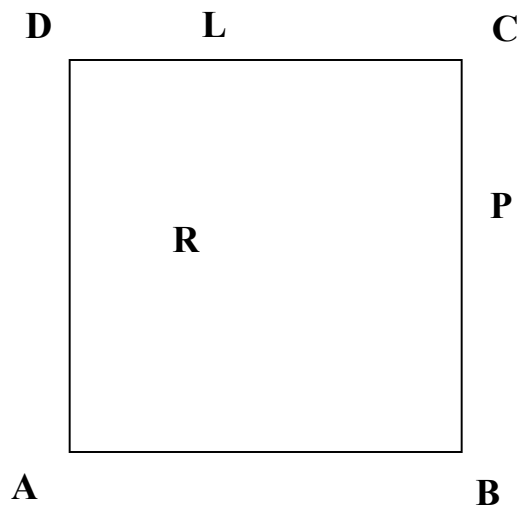
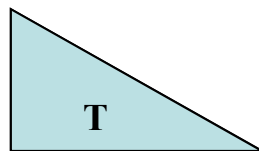


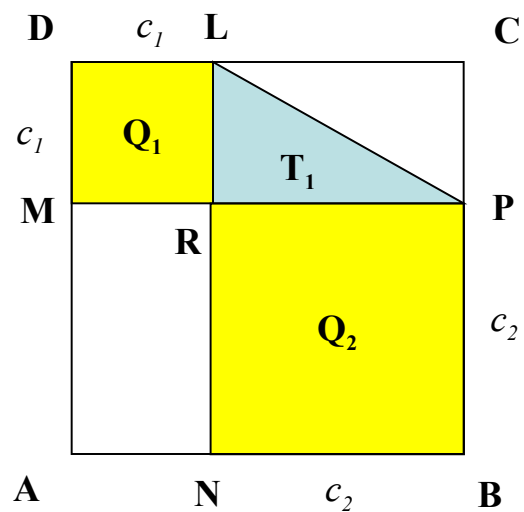
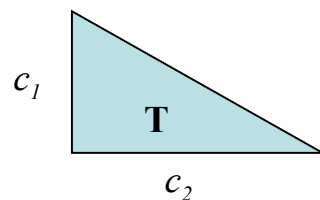
Il Teorema di Pitagora

*Studiamo un triangolo rettangolo qualunque e lo chiamiamo T
Disegna T_1 congruente a T . Chiama i suoi vertici R , L e P .*

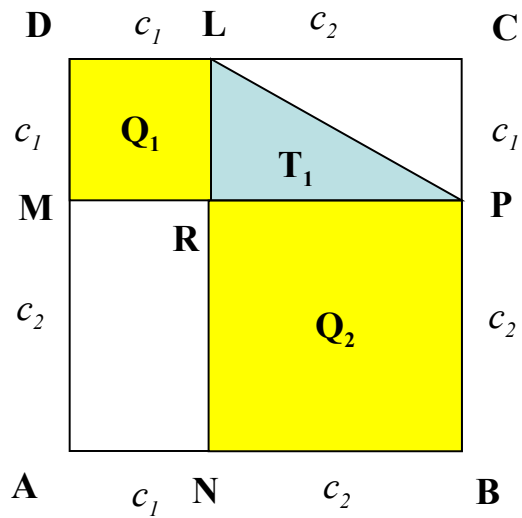
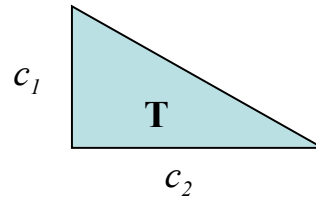


Costruisca il quadrato $RLDM$ sul cateto 1. Chiamalo Q_1 .

Costruisca il quadrato $PRNB$ sul cateto 2. Chiamalo Q_2 .



I lati di $ABCD$ sono congruenti a la somma dei due cateti c_1 e c_2 .

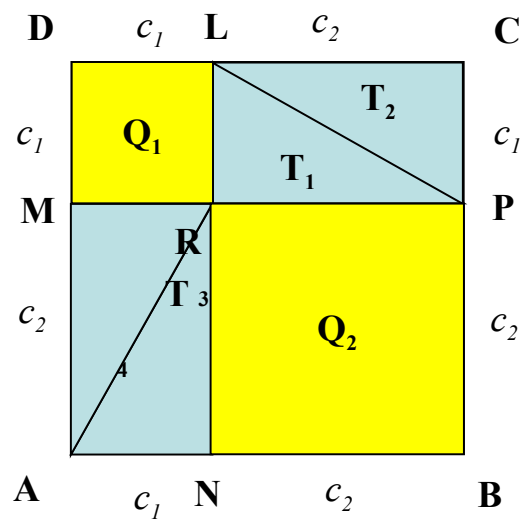
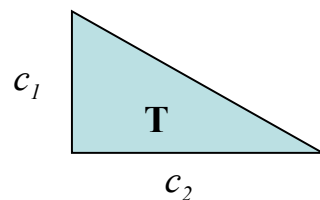


Termina la figura con i tre triangoli T_2 , T_3 e T_4 , congruenti a T .

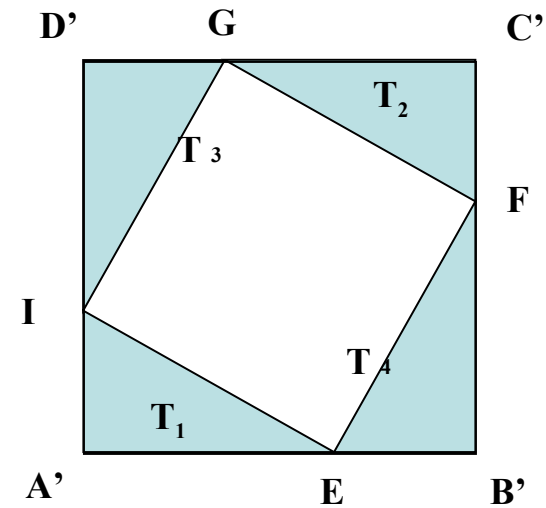
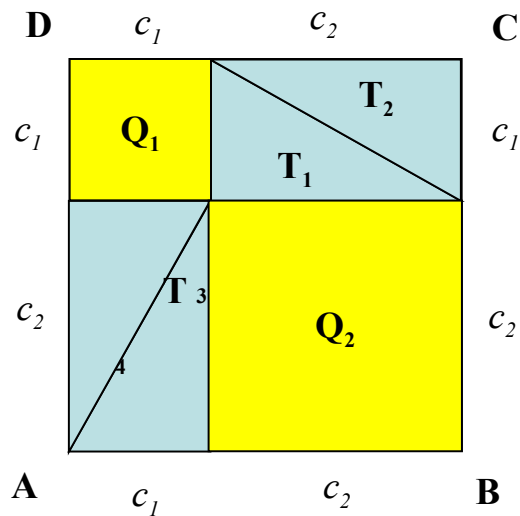
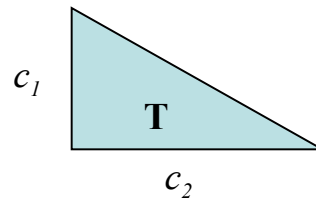
PLC e T_2

ARM e T_3

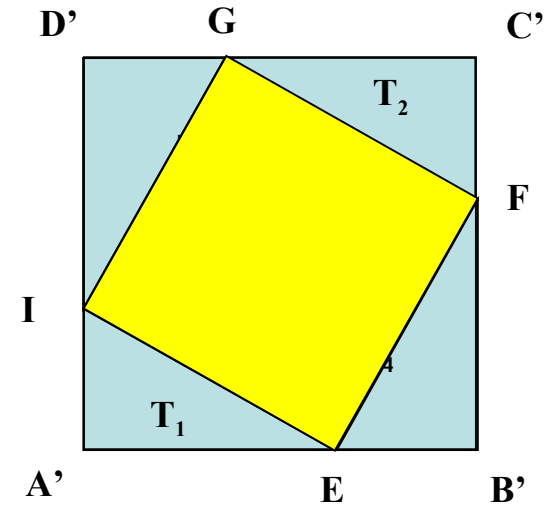
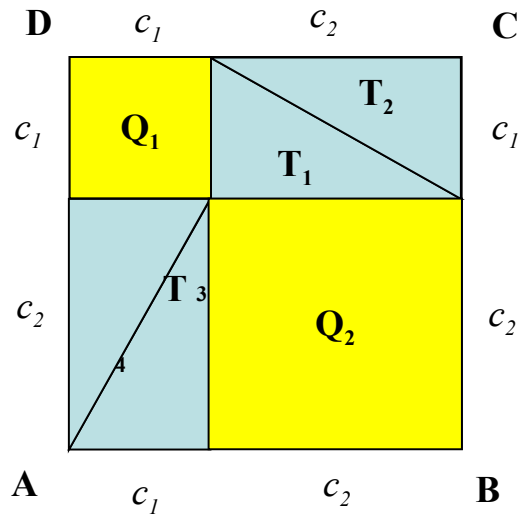
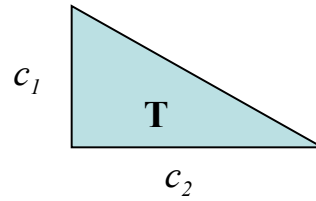
ANR e T_4



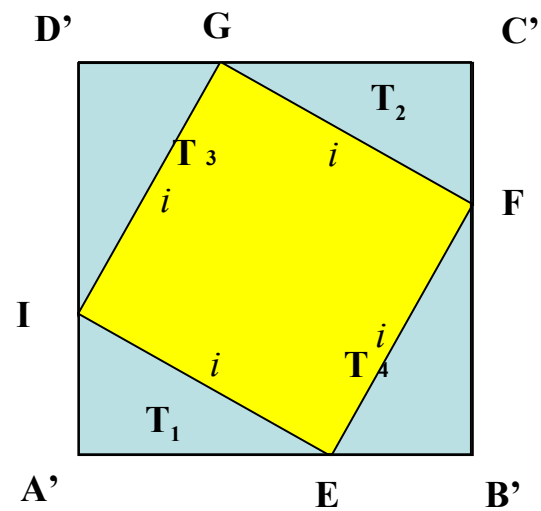
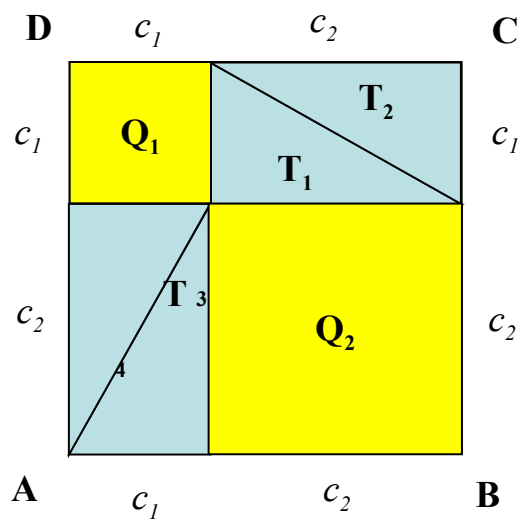
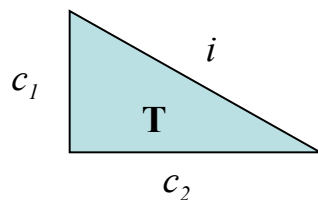
*Disegna un quadrato $A'B'C'D'$ congruente a $ABCD$.
 Colloca i triangoli T_1, T_2, T_3 e T_4 come nella figura 4.
 Aggiunga i punti E, F, G, I come nella figura 4.*



Il quadrilatero EFGI e un quadrato perche:

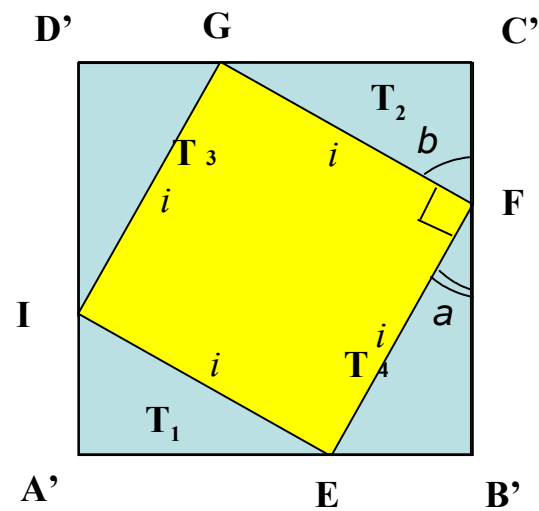
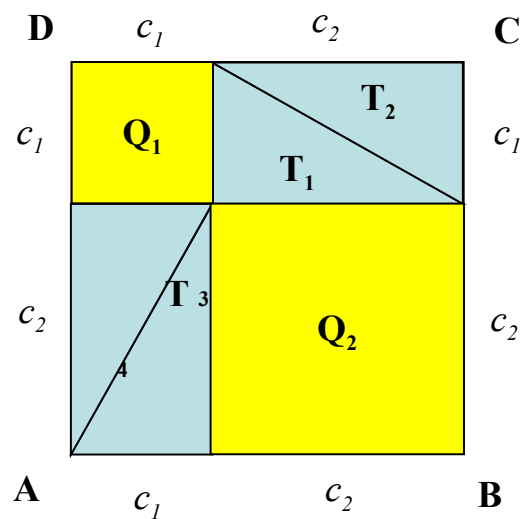
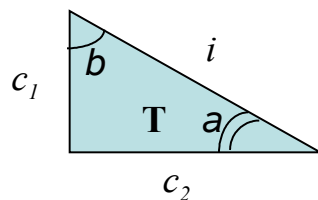


*Il quadrilatero EFGI e un quadrato perche:
Tutti i lati sono congruenti a l'ipotenusa.*



*Il quadrilatero EFGI e un quadrato perche:
Tutti i lati sono congruenti a l'ipotenusa. Tutti gli angoli sono retti.*

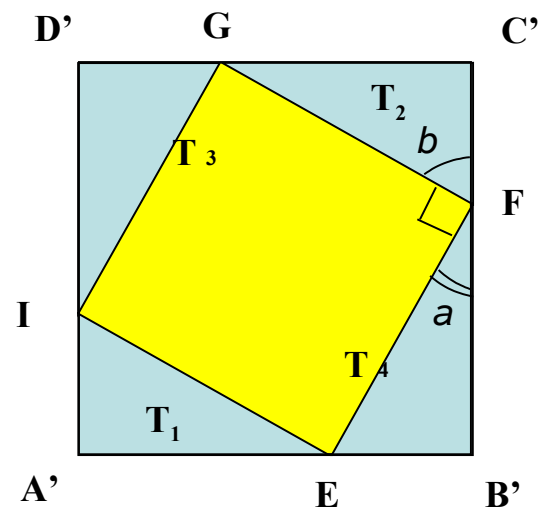
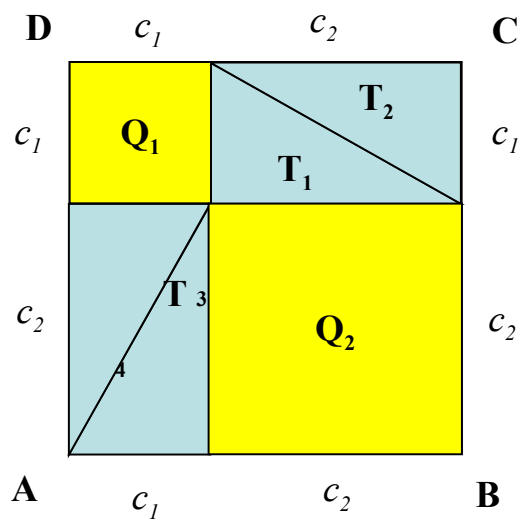
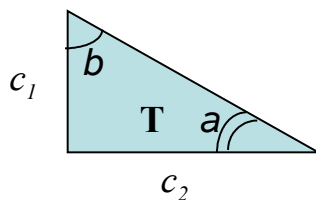
$$a + b = 90^\circ$$



Il quadrilatero EFGI e un quadrato perche:

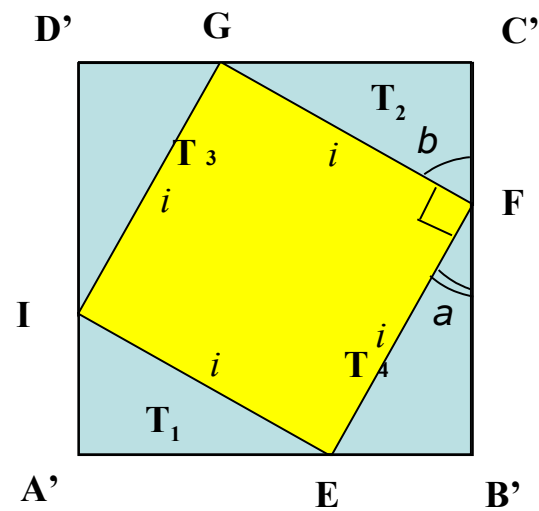
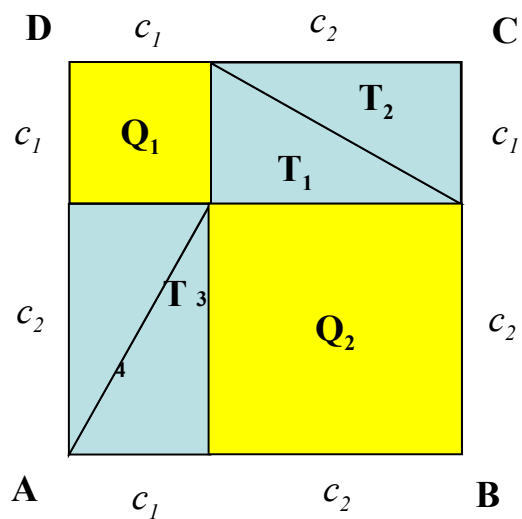
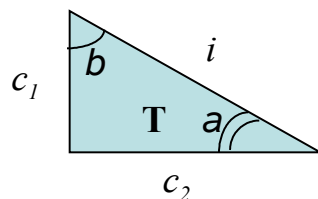
Tutti gli angoli sono retti.

$$a + b = 90^\circ$$

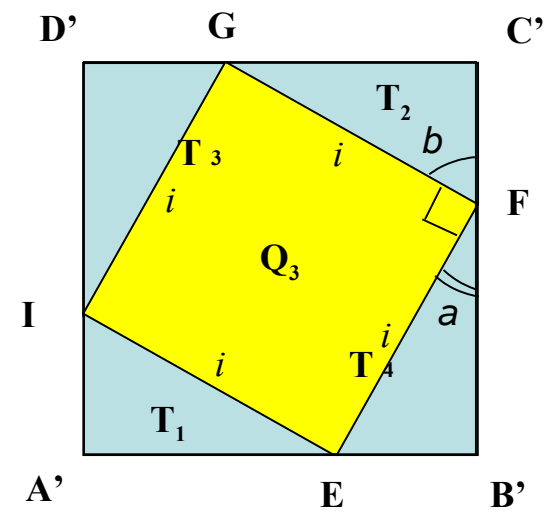
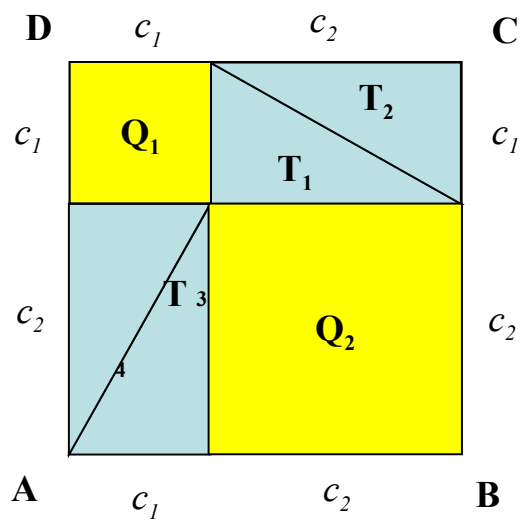
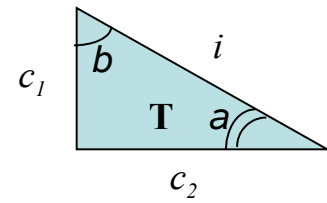


*Il quadrilatero EFGI e un quadrato perche:
Tutti i lati sono congruenti a l'ipotenusa. Tutti gli angoli sono retti.*

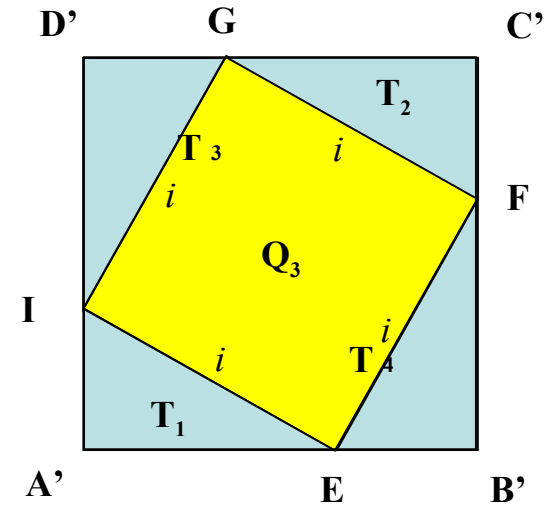
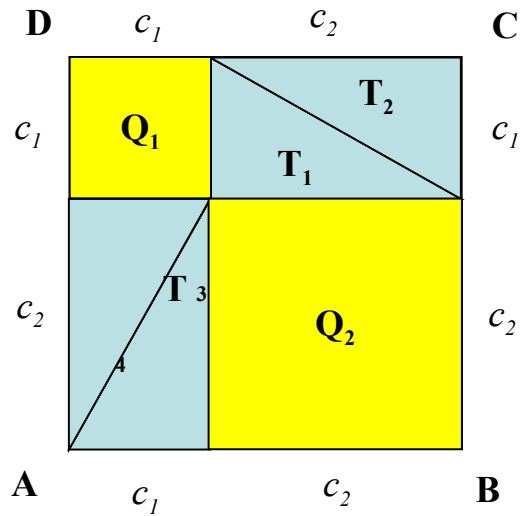
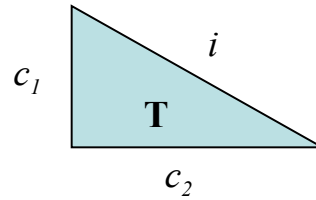
$$a + b = 90^\circ$$



Chiama queste terzo quadrato : Q_3



*Tolga i triangoli T_1, T_2, T_3, T_4 .
Solo rimangono i quadrati Q_1, Q_2 in $ABCD$ e Q_3 in $A'B'C'D'$.*



CONCLUSIONE

In un triangolo rettangolo, la somma delle aree dei quadrati costruiti sui cateti è uguale all'area del quadrato costruito sull'ipotenusa :

$$\text{area } Q_1 + \text{area } Q_2 = \text{area } Q_3$$

