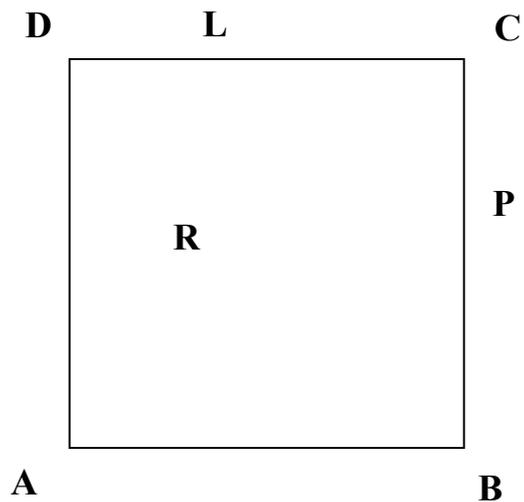
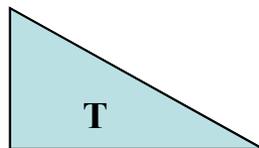


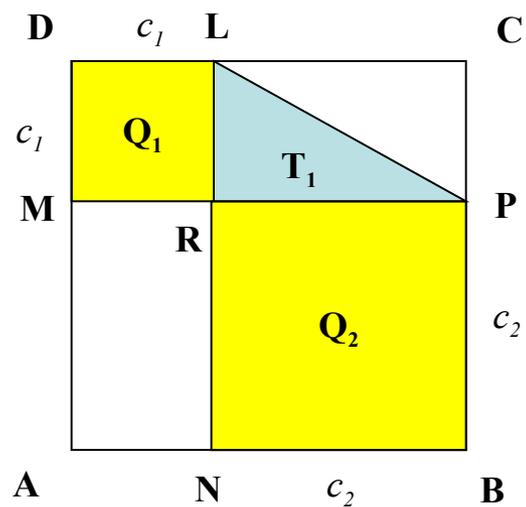
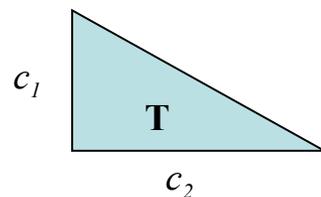
# Il Teorema di Pitagora

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

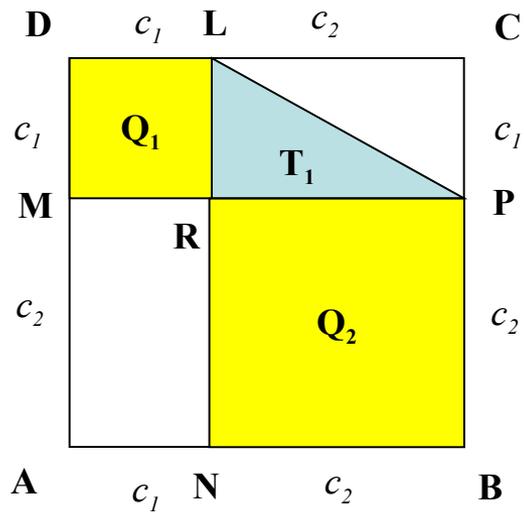
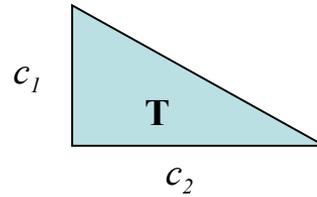


*Costruisca il quadrato  $RLDM$  sul cateto 1. Chiamalo  $Q_1$ .*

*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  $c_2$ .*

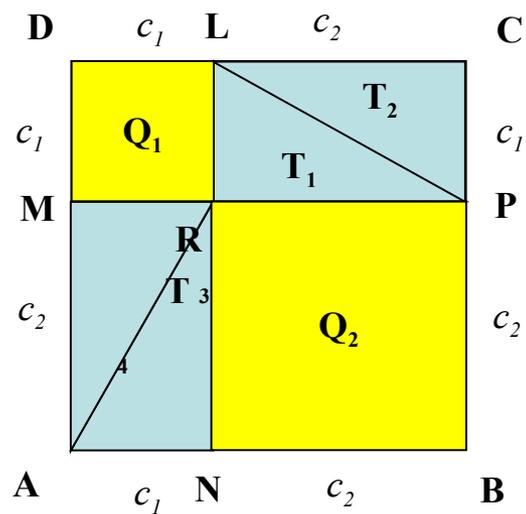
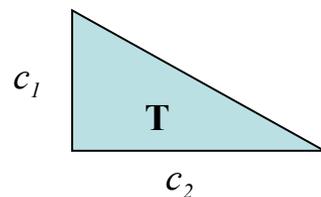


*Termina la figura con i tre triangoli  $T_2$ ,  $T_3$  e  $T_4$ , congruenti a  $T$ .*

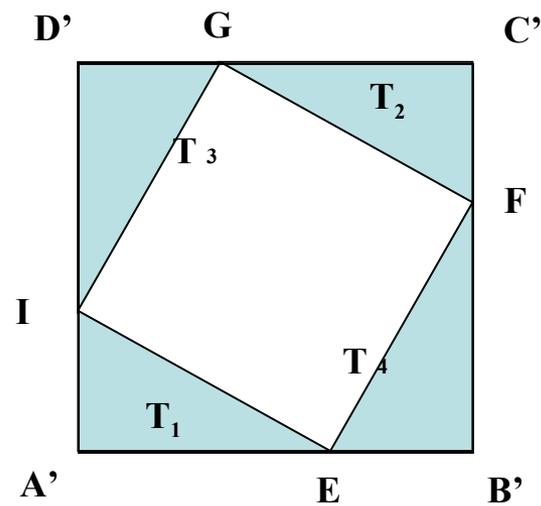
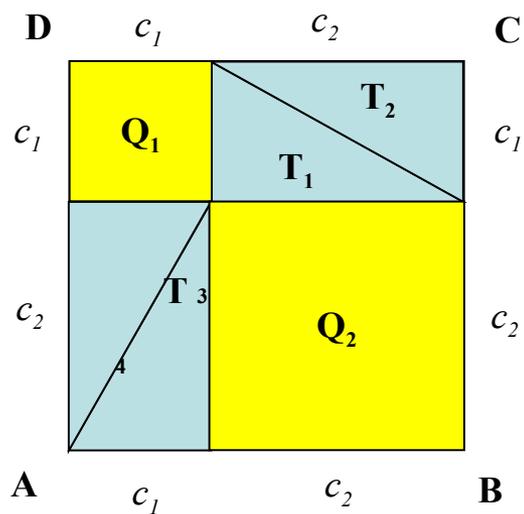
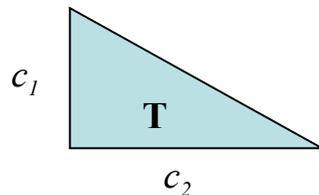
*PLC e  $T_2$*

*ARM e  $T_3$*

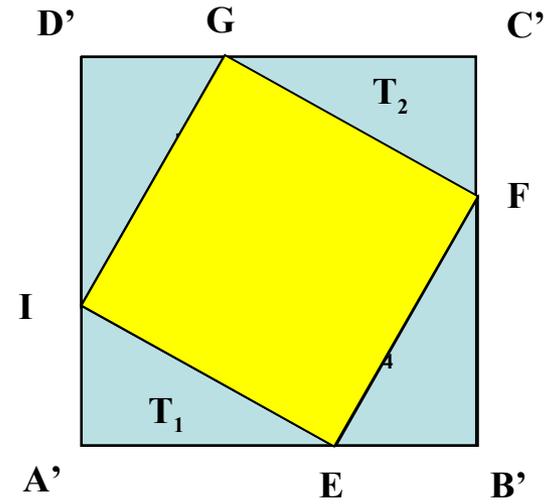
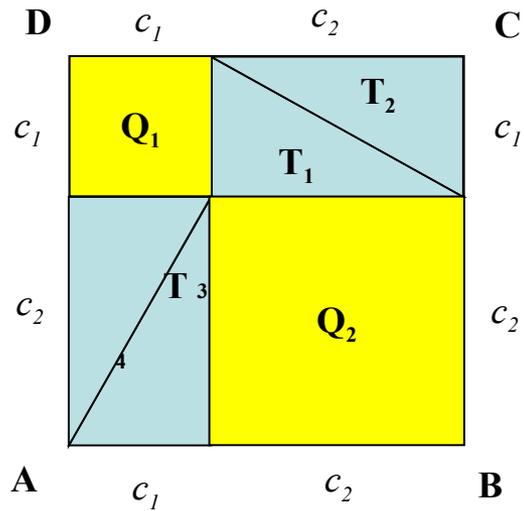
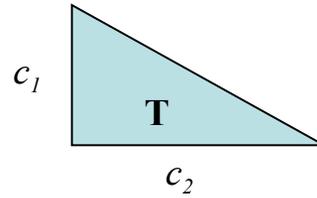
*ANR e  $T_4$*



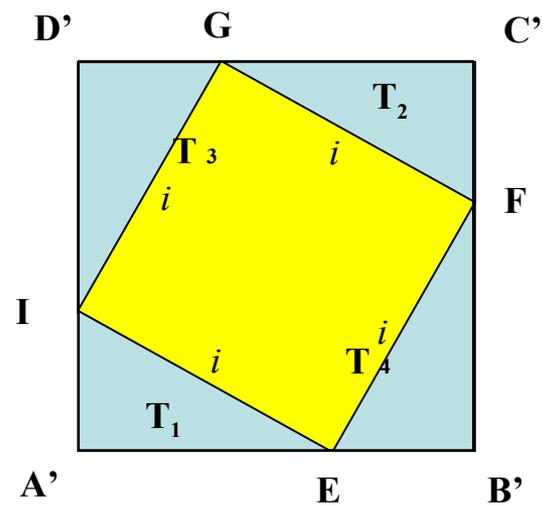
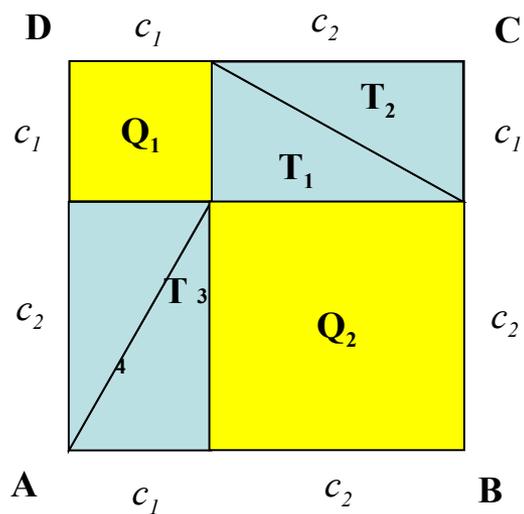
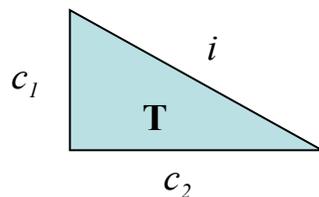
*Disegna un quadrato  $A'B'C'D'$  congruente a  $ABCD$ .  
 Colloca i triangoli  $T_1$ ,  $T_2$ ,  $T_3$  e  $T_4$  come nella figura 4.  
 Aggiunga i punti  $E$ ,  $F$ ,  $G$ ,  $I$  come nella figura 4.*



*Il quadrilatero EFGI e un quadrato perche:*

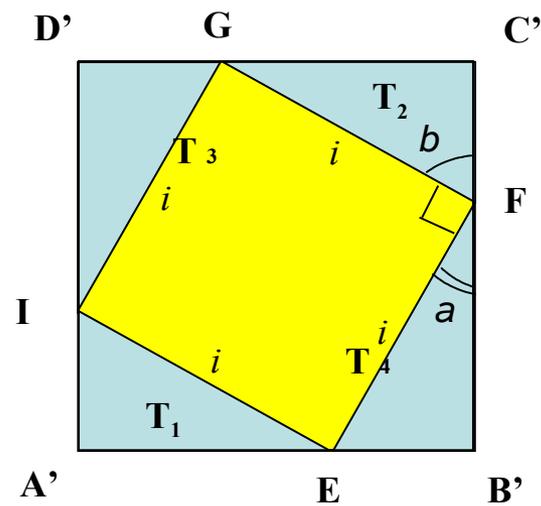
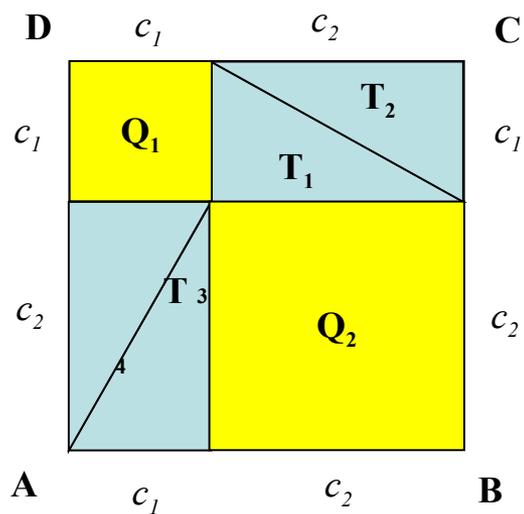
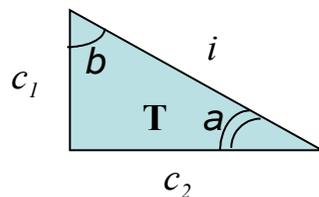


*Il quadrilatero EFGI e un quadrato perche:  
Tutti i lati sono congruenti a l'ipotenusa.*



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

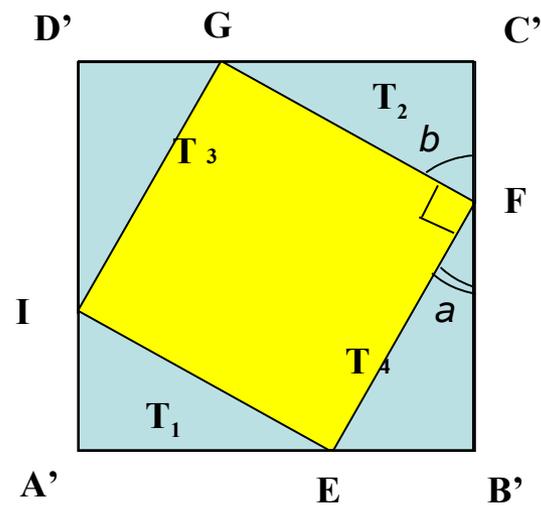
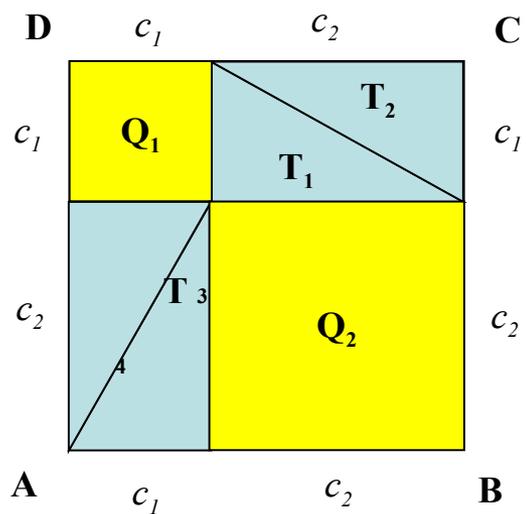
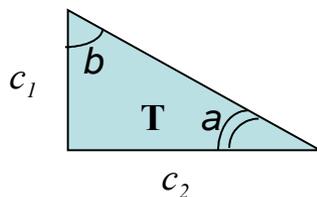
$$a + b = 90^\circ$$



*Il quadrilatero EFGI e un quadrato perche:*

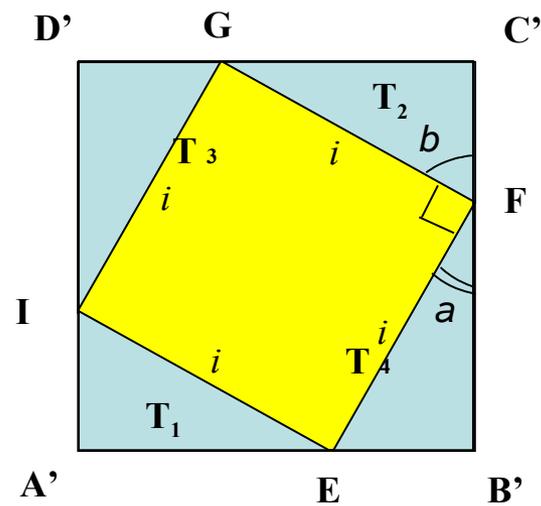
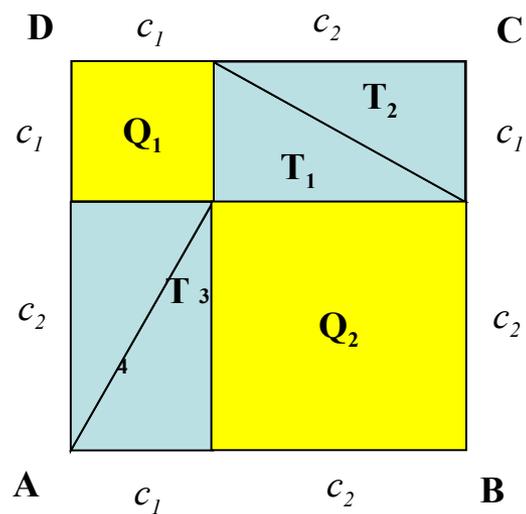
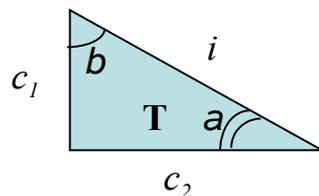
*Tutti gli angoli sono retti.*

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

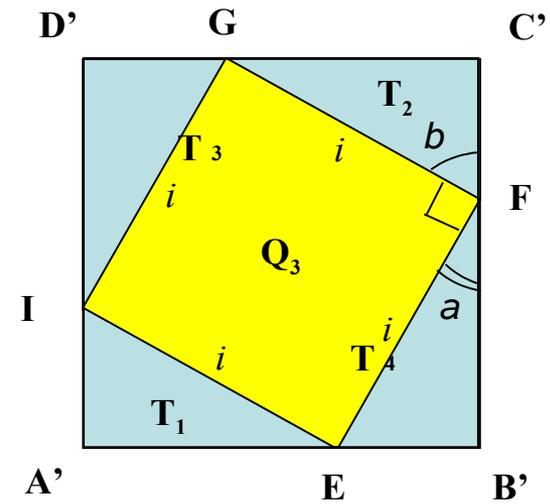
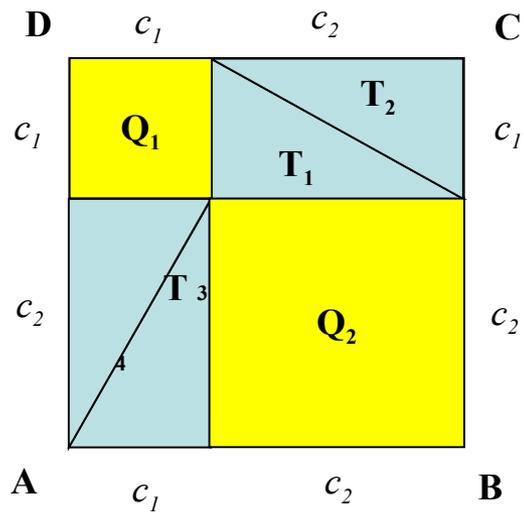
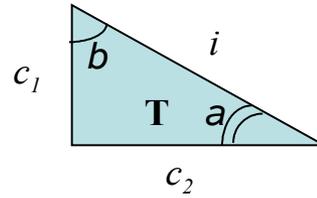


*Il quadrilatero EFGI e un quadrato perche:  
Tutti i lati sono congruenti a l'ipotenusa. Tutti gli angoli sono retti.*

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

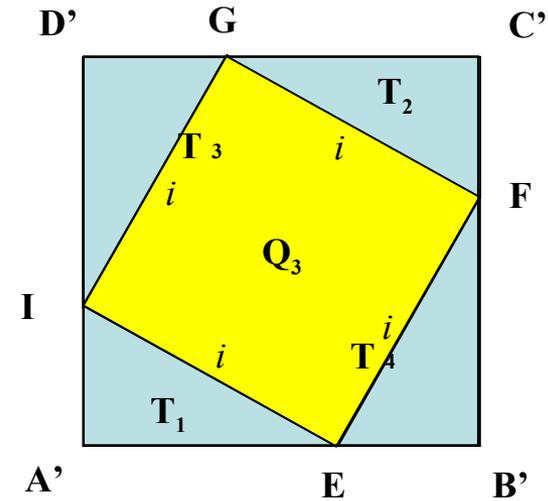
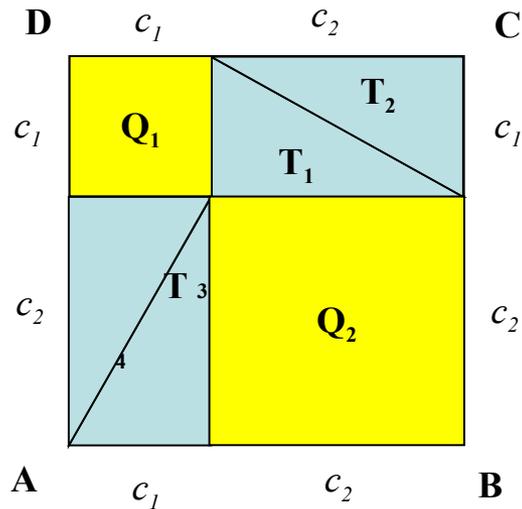
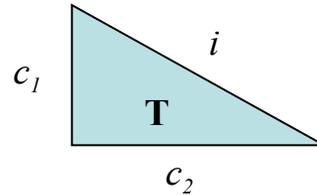


*Chiama queste terzo quadrato :  $Q_3$*



*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 :*

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

