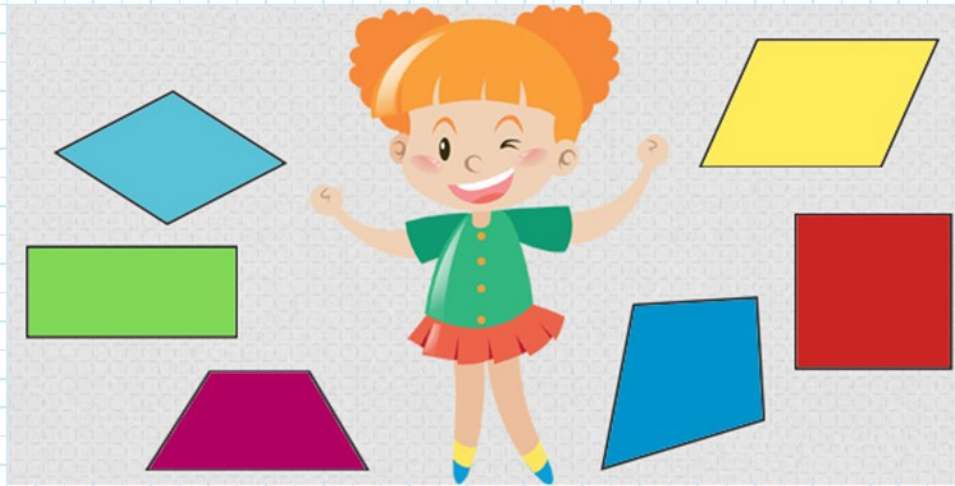


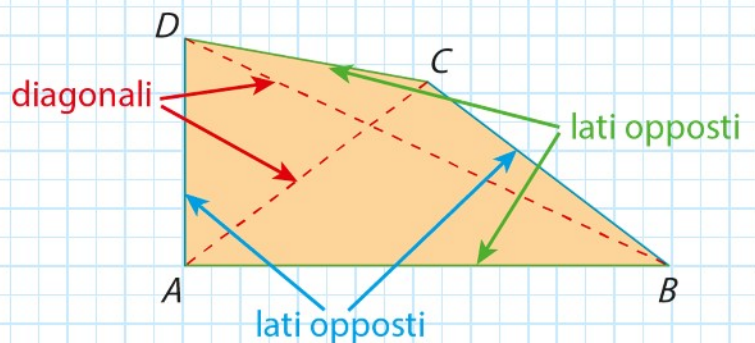
I QUADRILATERI



POLIGONI CON 4 LATI, 4 VERTICI E 4 ANGOLI

CARATTERISTICHE:

① OGNI LATO È MINORE DELLA SOMMA DEGLI ALTRI



② DIAGONALI

$$d_v = m - 3 \quad \text{e} \quad d = \frac{m \cdot (m - 3)}{2}$$

$$d_v = 1 \quad \text{e} \quad d = 2$$

= 2

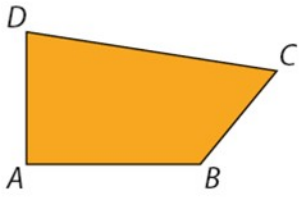
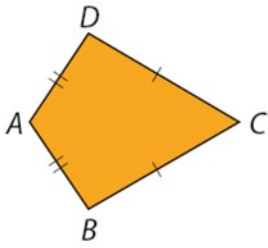
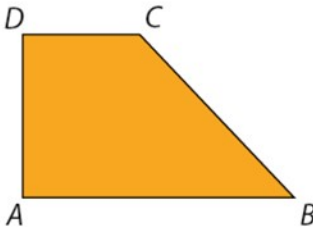
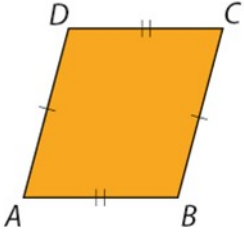
③ SOMMA ANGOLI INTERNI

③ SOMMA ANGOLI INTERNI

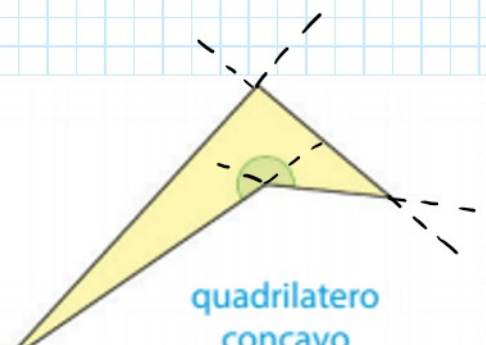
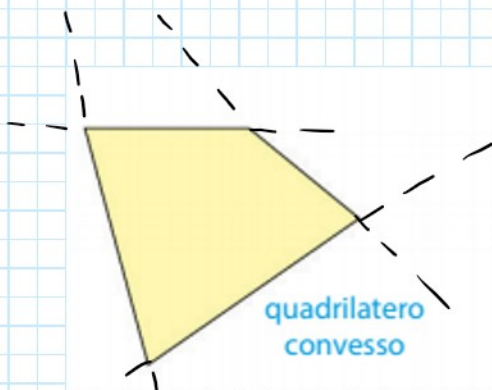
$$S_i = 180^\circ (n-2)$$

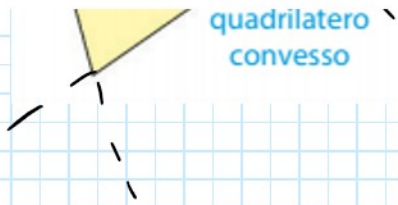
$$S_i = 180^\circ \cdot (4-2) = 360^\circ$$

CLASSIFICAZIONE

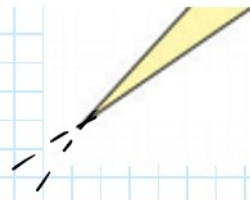
Quadrilateri scaleni	Deltoidi	Trapezi	Parallelogrammi
I lati non sono né paralleli né congruenti.	Hanno due coppie di lati consecutivi congruenti.	Hanno una coppia di lati opposti paralleli.	Hanno due coppie di lati opposti paralleli e congruenti.
			
$AB \nparallel CD$ e $BC \nparallel AD$ $AB \neq CD$ e $BC \neq AD$	$AB \cong AD$ e $BC \cong CD$	$AB \parallel CD$ -	$AB \parallel CD$ e $BC \parallel AD$ $AB \cong CD$ e $BC \cong AD$

UN QUADRILATERO SI DICE **CONVESSO** SE NON CONTIENE IL PROLUNGAMENTO DEI LATI; È **CONCAVO** SE CONTIENE IL PROLUNGAMENTO DEI LATI



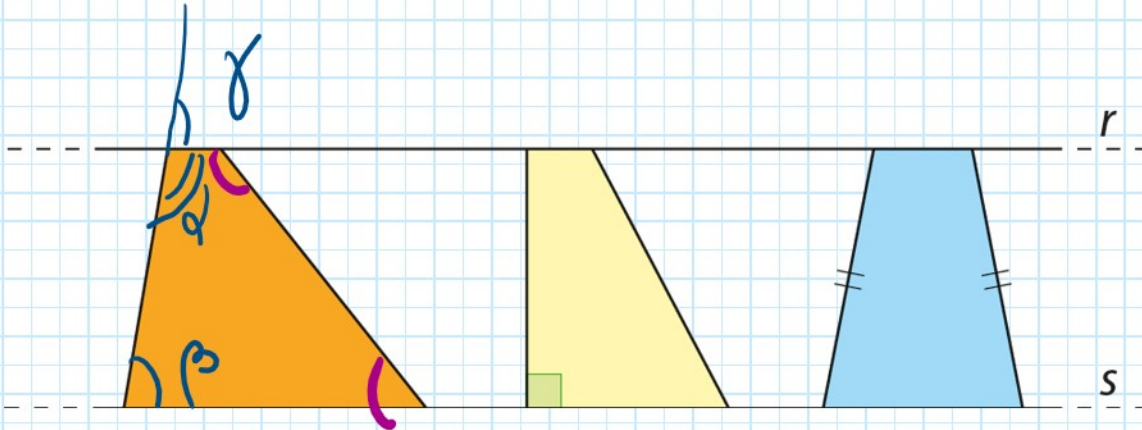


quadrilatero
convesso



quadrilatero
concavo

I TRAPEZI



GLI ANGOLI ADIACENTI A CIASCUN LATO OBLIQUO
SONO SUPPLEMENTARI

$$\alpha + \gamma = 180^\circ$$

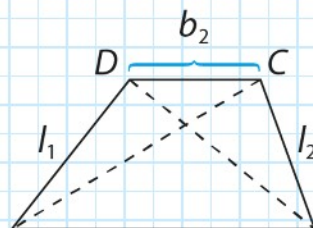
MA β e γ SONO CONGRUENTI
PERCHÉ SONO CORRISPONDENTI!



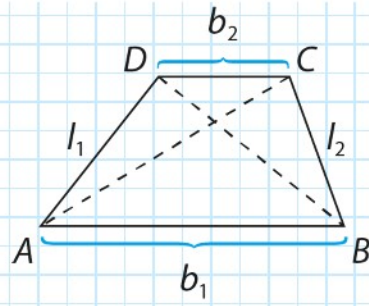
$$\alpha + \beta = 180^\circ$$

TRAPEZIO SCALENO

$$p = l_1 + l_2 + b_1 + b_2$$



$$P = l_1 + l_2 + b_1 + b_2$$



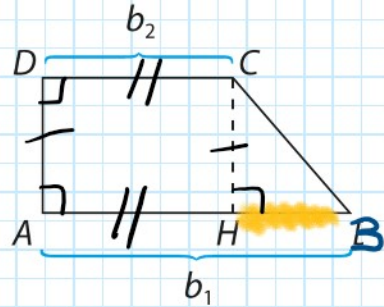
TRAPEZIO RETTANGOLO

$$AD = CH$$

$$AH = DC$$

$$HB = AB - DC$$

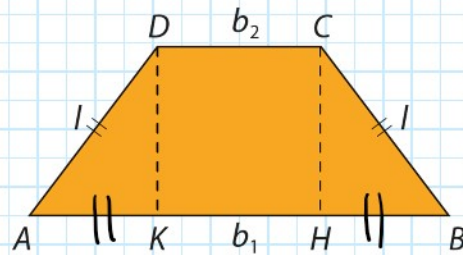
HB SI DICE PROIEZIONE DI CB
SU AB



TRAPEZIO ISOSCELE

$$AD = CB$$

$$AK = HB$$

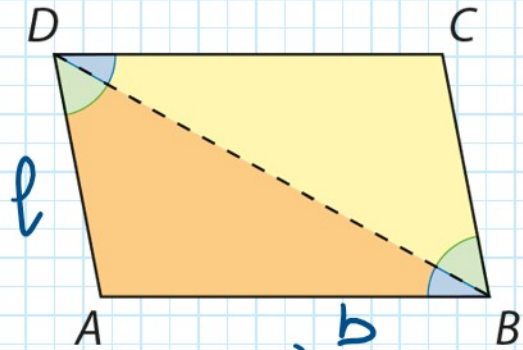


I PARALLELOGRAMMI

SONO QUADRILATERI CON I LATI OPPOSTI PARALLELI



I LATI E GLI ANGOLI OPPOSTI SONO CONGRUENTI



$$P = AB + BC + CD + AD = 2(AB + BC) = 2(b + l)$$



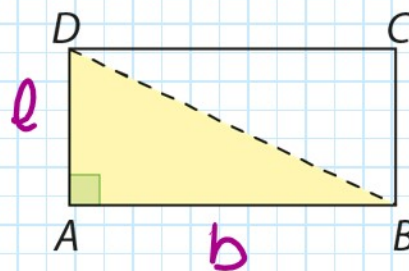
$$P = 2(b + l) \Rightarrow b + l = \frac{P}{2}$$

$$b = \frac{P}{2} - l$$

$$l = \frac{P}{2} - b$$

IL RETTANGOLO

È UN PARALLELOGRAMMA CON TUTTI GLI ANGOLI CONGRUENTI E RETTI



$$AB \parallel CD \text{ e } AD \parallel BC$$

$AB \parallel CD$ e $AD \parallel BC$

$$\hat{A} = \hat{B} = \hat{C} = \hat{D} = 90^\circ$$

$$P = 2(AB + BC) = 2(b + l)$$

$$b = \frac{P}{2} - l \quad \text{e} \quad l = \frac{P}{2} - b$$

IL ROMBO

È UN PARALLELOGRAMMA

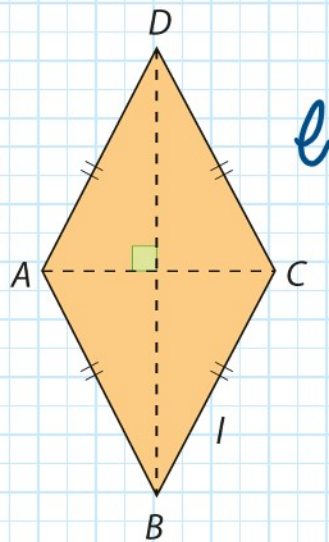
CON TUTTI I LATI CONGRUENTI

$AB \parallel CD$ e $AD \parallel BC$

$$AB \cong BC \cong CD \cong AD = l$$

$$P = AB + BC + CD + AD = 4 \cdot l$$

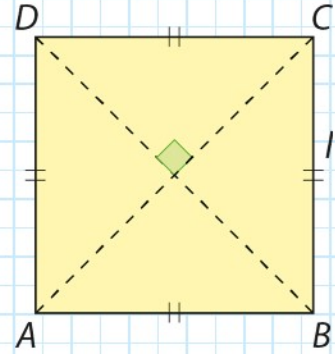
$$l = \frac{P}{4}$$



IL QUADRATO

IL QUADRATO

È UN PARALLELOGRAMMA
CON TUTTI I LATI CONGRUENTI
E GLI ANGOLI CONGRUENTI E
RETTI.



$AB \parallel CD$ e $BC \parallel AD$

$AB \cong BC \cong CD \cong DA$ e $\hat{A} = \hat{B} = \hat{C} = \hat{D} = 90^\circ$

LE DIAGONALI SONO CONGRUENTI E
PERPENDICOLARI

$$p = 4 \cdot l \quad \Rightarrow \quad l = \frac{p}{4}$$

