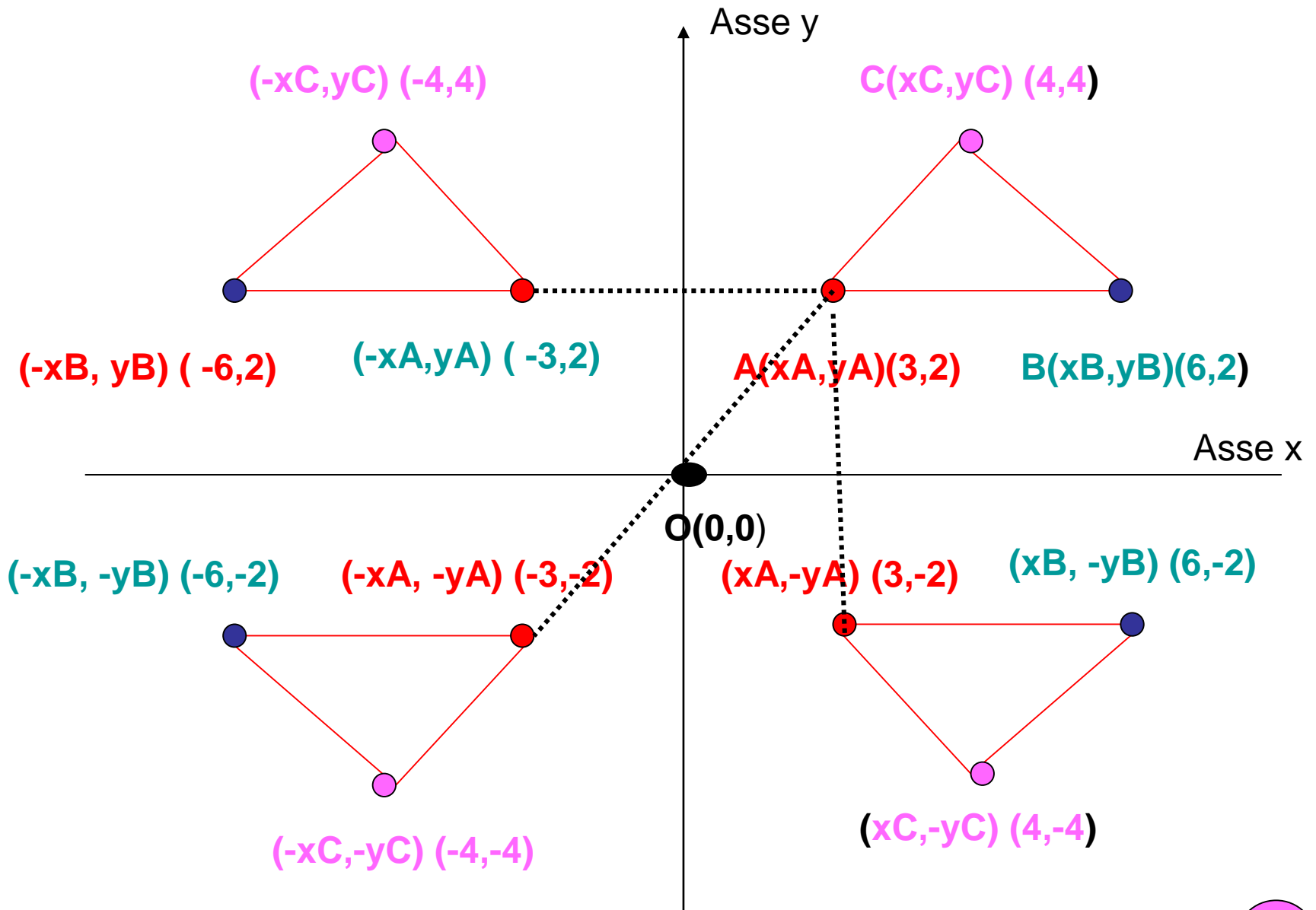


Simmetria di poligono
(triangolo)
assiale secondo asse y , asse x
centrale con centro O , Q

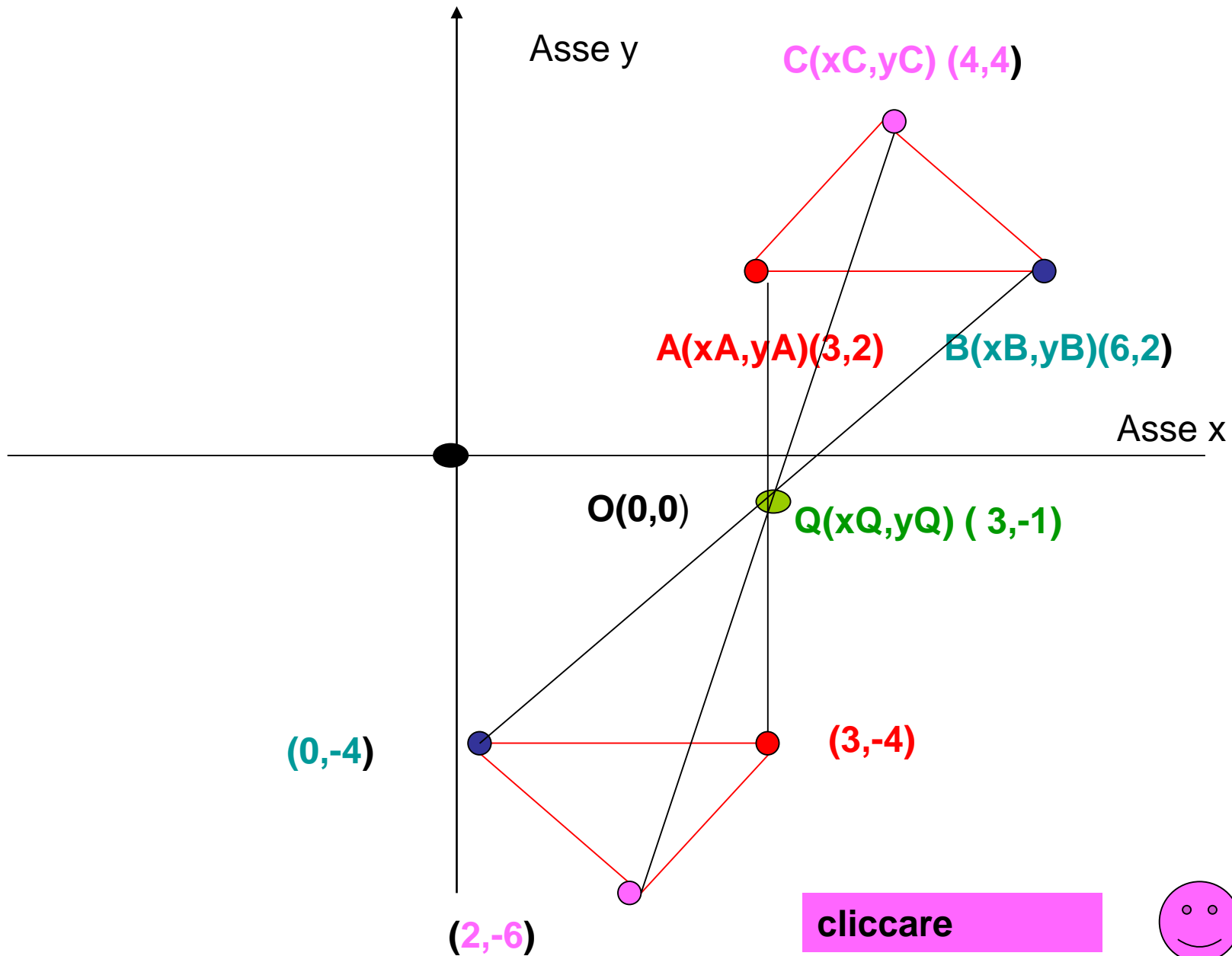
[Cliccare per proseguire \(se serve\)](#)



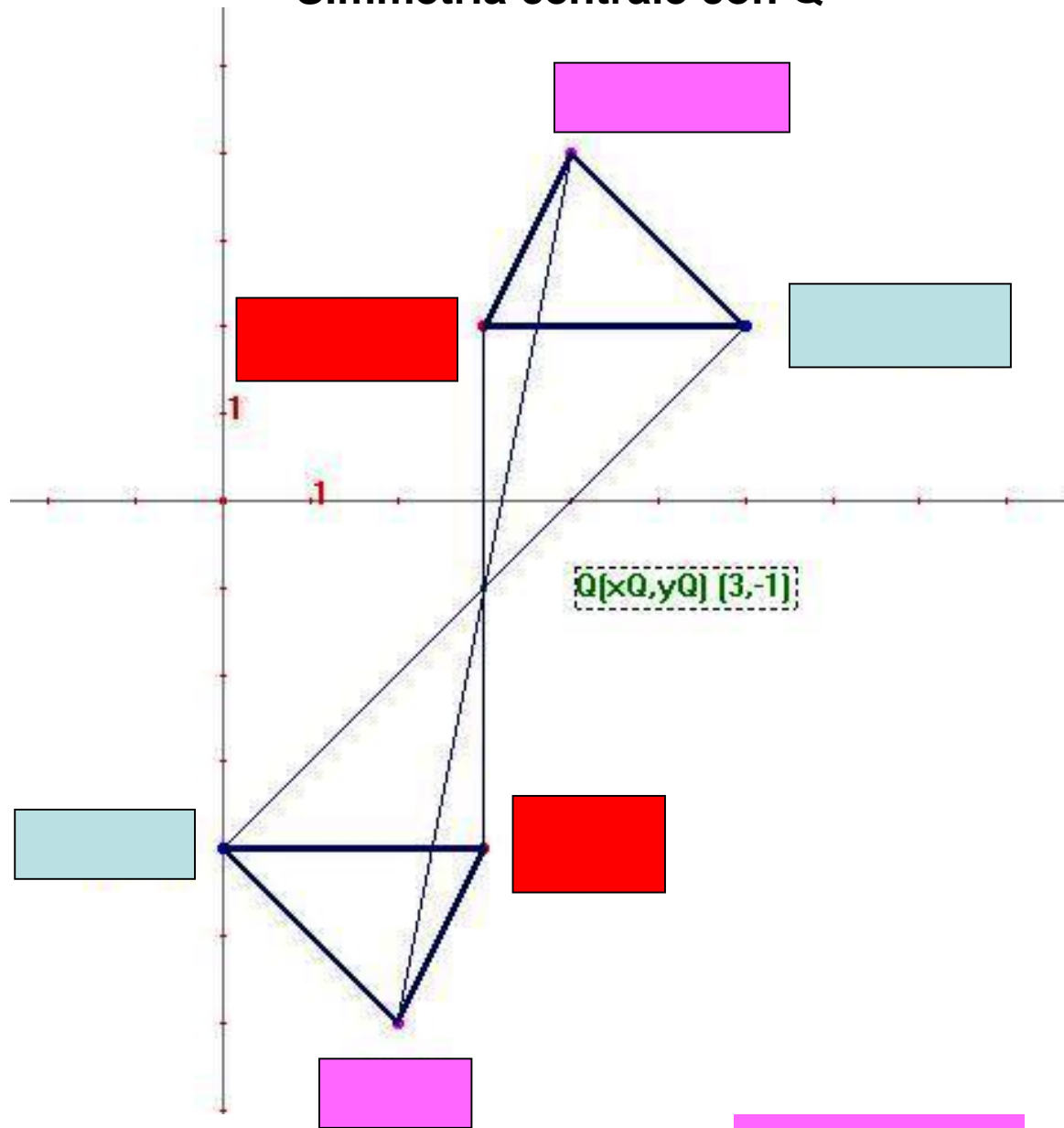


cliccare



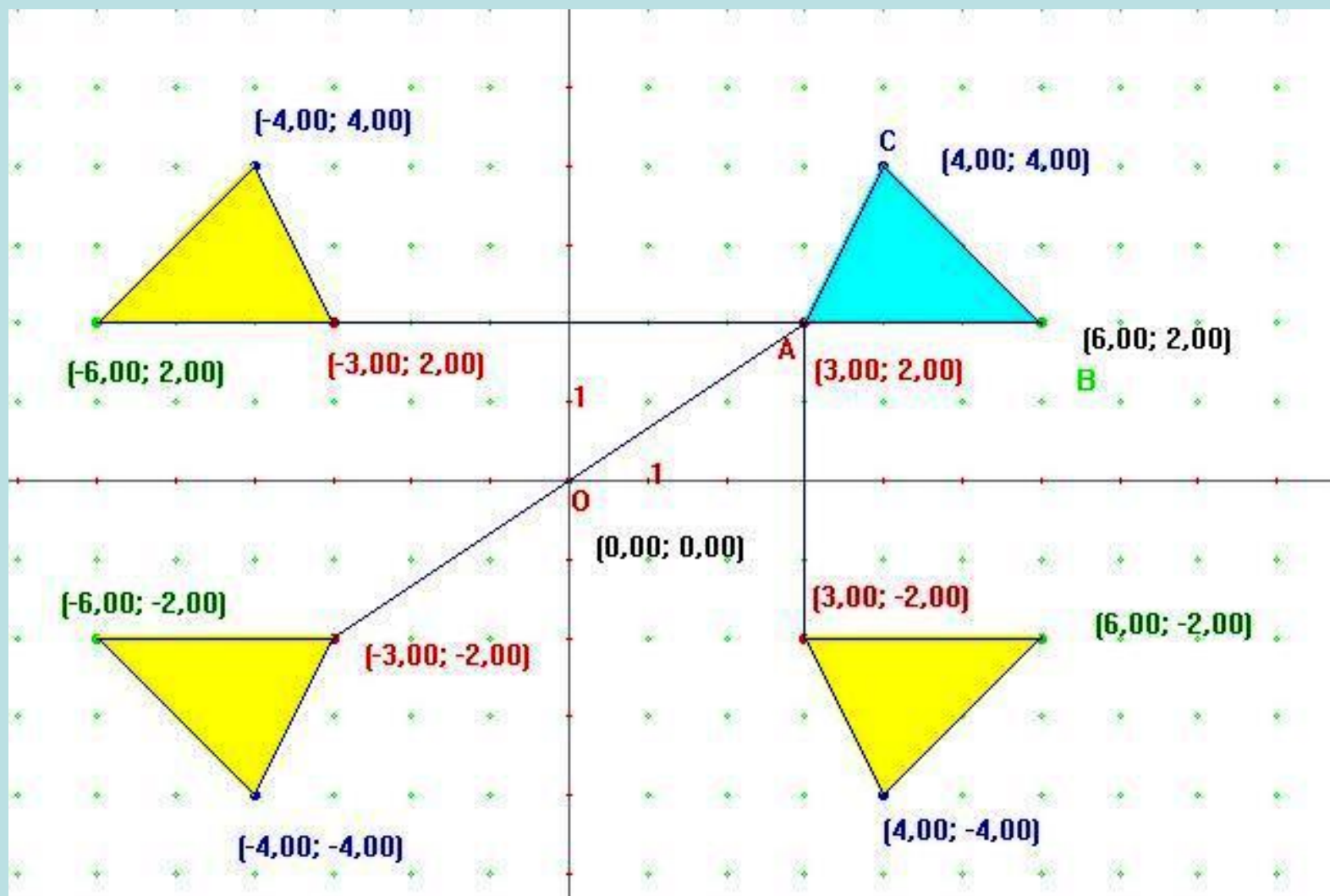


Simmetria centrale con Q



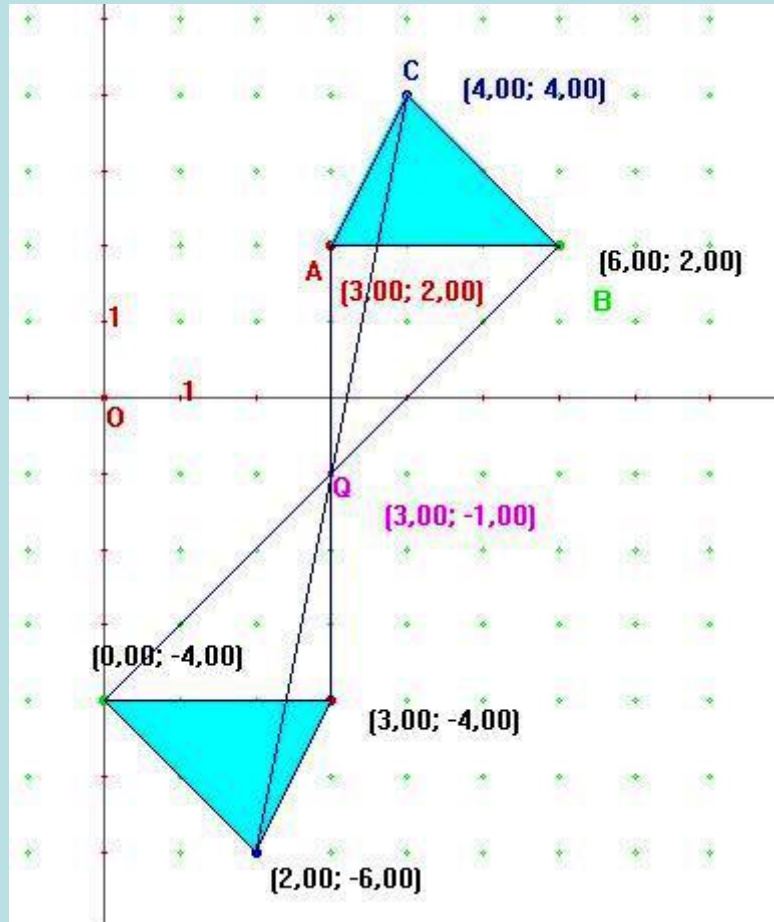
clickare





[cliccare](#)





cliccare





are poligono (triangolo)"

simmetrico assiale y, assiale x, centrale ="

simmetrico assiale y, assiale x, centrale 0"

i per tre vertici a, b, c"

, 2]

, 2]

, 5]

e con vertici a,b,c,a"

, b, c, a]

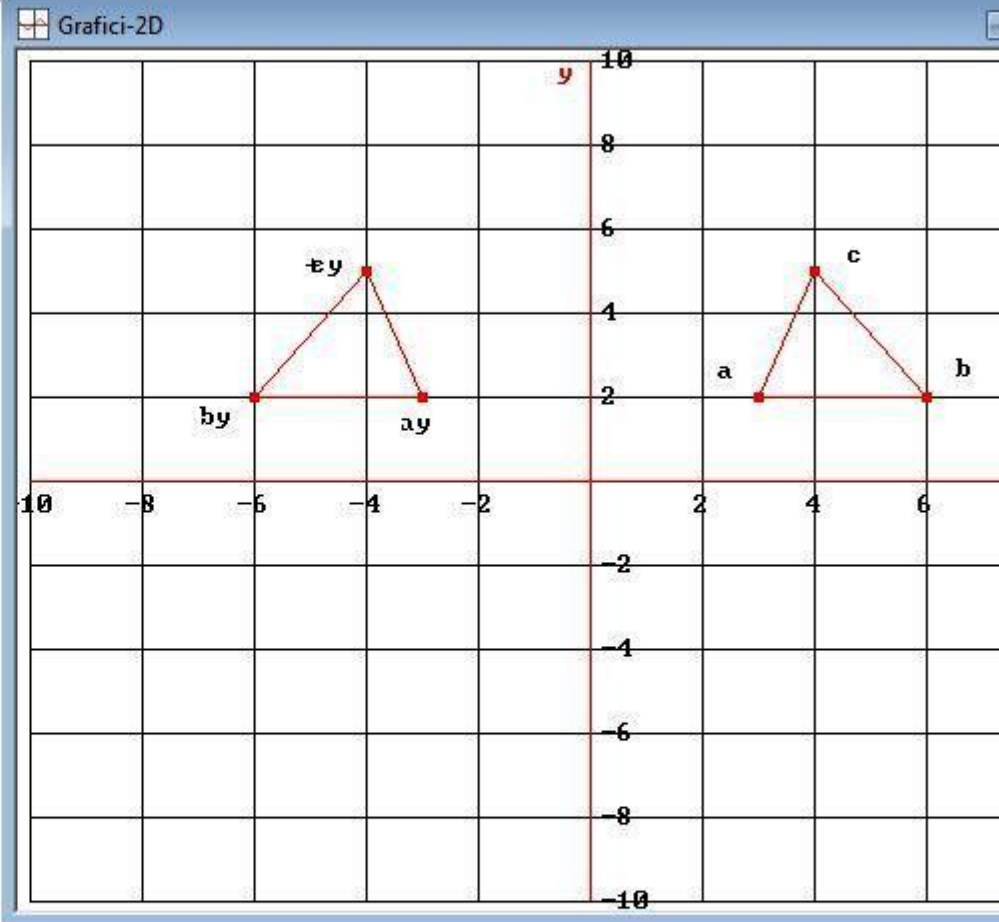
ona t, semplifica, approssima"

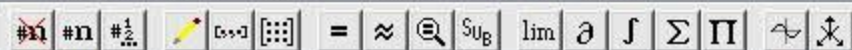
ona valori , disegna"

o simmetrico secondo asse y"

o punti isolati assegnando coordinate -x,y"

punti collegati"





???.MTH

segnare poligono (triangolo)"

are simmetrico assiale y, assiale x, centrale ="

are simmetrico assiale y, assiale x, centrale 0"

ttori per tre vertici a, b, c"

= [3, 2]

= [6, 2]

= [4, 5]

ttore con vertici a,b,c,a"

= [a, b, c, a]

leziona t, semplifica, approssima"

$$\begin{bmatrix} 2 \\ 2 \\ 5 \\ 2 \end{bmatrix}$$

leziona valori , disegna"

segno simmetrico secondo asse y"

o SY(v) applicata a vari punti"

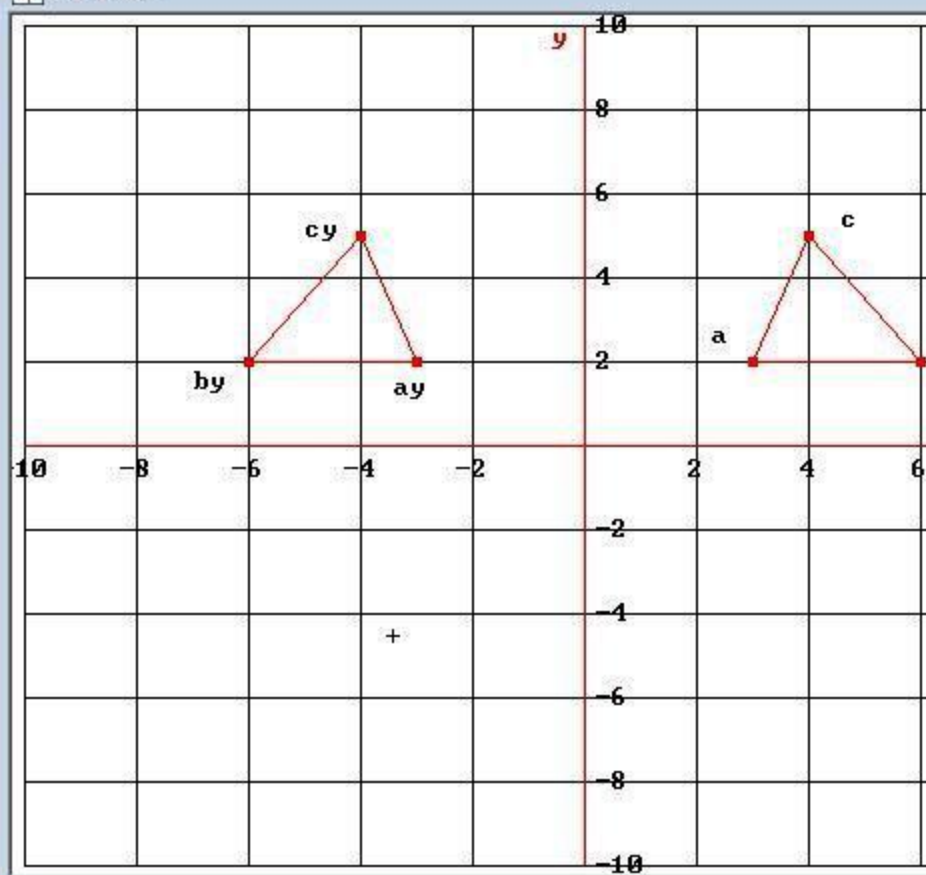
v) := $\begin{bmatrix} -v_1 & v_2 \end{bmatrix}$

(a). SY(b). SY(c). SY(a)

mplifica- approssima- disegna"

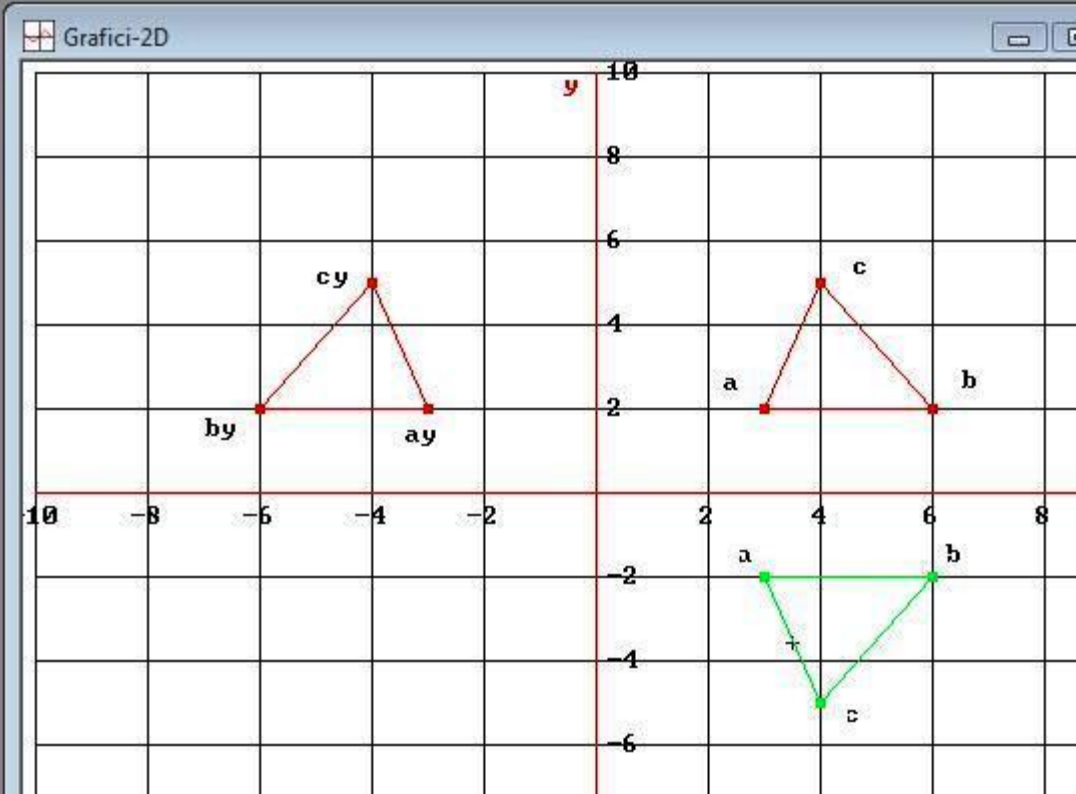
$$\begin{bmatrix} 3 & 2 \\ 6 & 2 \\ 4 & 5 \\ 3 & 2 \end{bmatrix}$$

Grafici-2D





```
Algebra ???MTH  
[ -3 2 ]  
#14: "disegno simmetrico secondo asse x"  
#15: "uso SX(v) applicata a vari punti"  
#16: SX(v) := [ v_1, -v_2 ]  
#17: "semplifica- approssima- disegna"  
#18: [SX(a), SX(b), SX(c), SX(a)]  
#19: [ 3 -2 ]  
      [ 6 -2 ]  
      [ 4 -5 ]  
      [ 3 -2 ]
```



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Algebra ???MTH

$$\begin{bmatrix} 4 & -5 \\ 3 & -2 \end{bmatrix}$$

".....simmetria centrale 0 .."

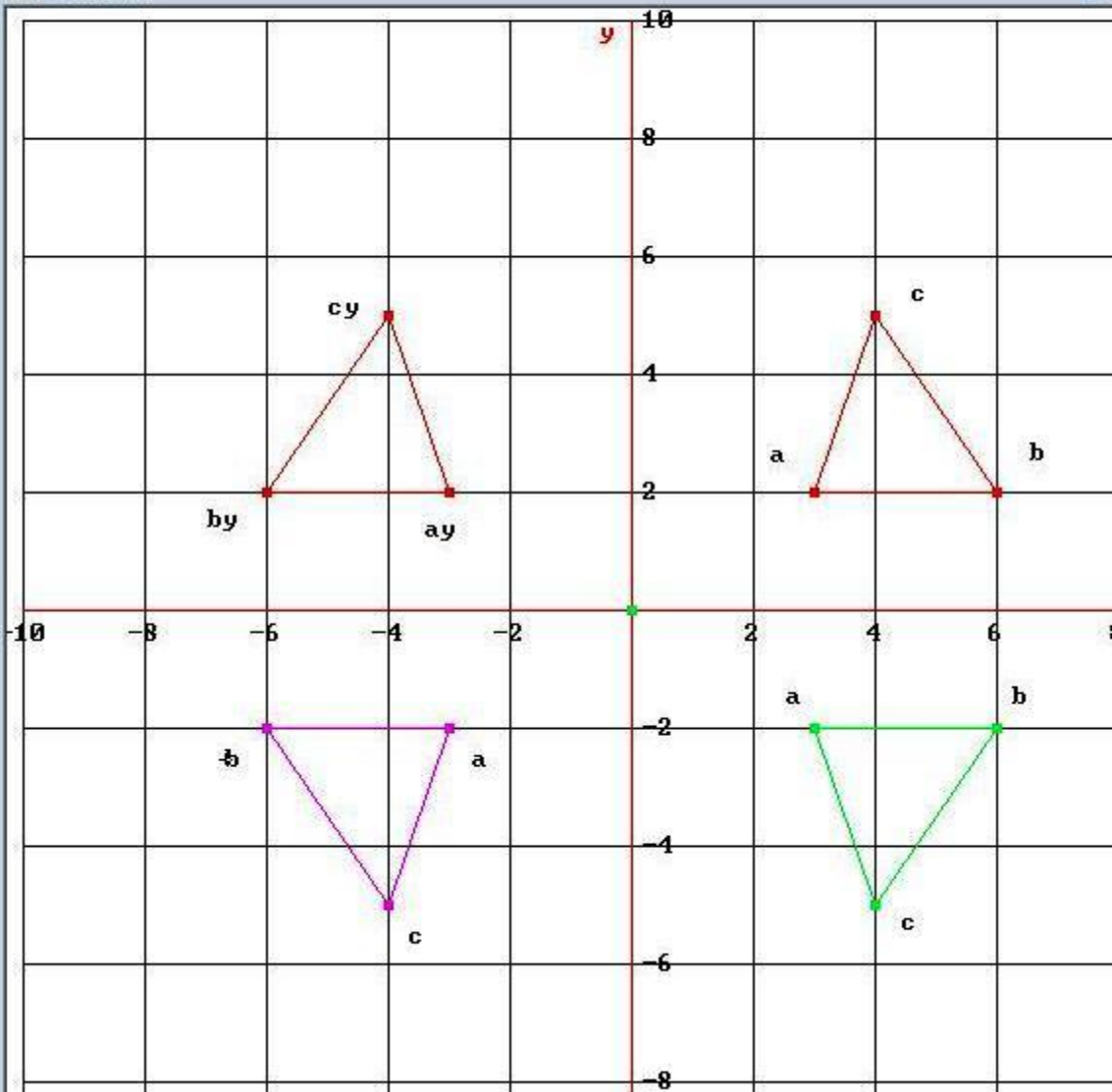
[0, 0]

$$S0(v) := \begin{bmatrix} -v_1 & -v_2 \\ v_1 & v_2 \end{bmatrix}$$

[S0(a), S0(b), S0(c), S0(a)]

$$\begin{bmatrix} -3 & -2 \\ -6 & -2 \\ -4 & -5 \\ -3 & -2 \end{bmatrix}$$

Grafici-2D

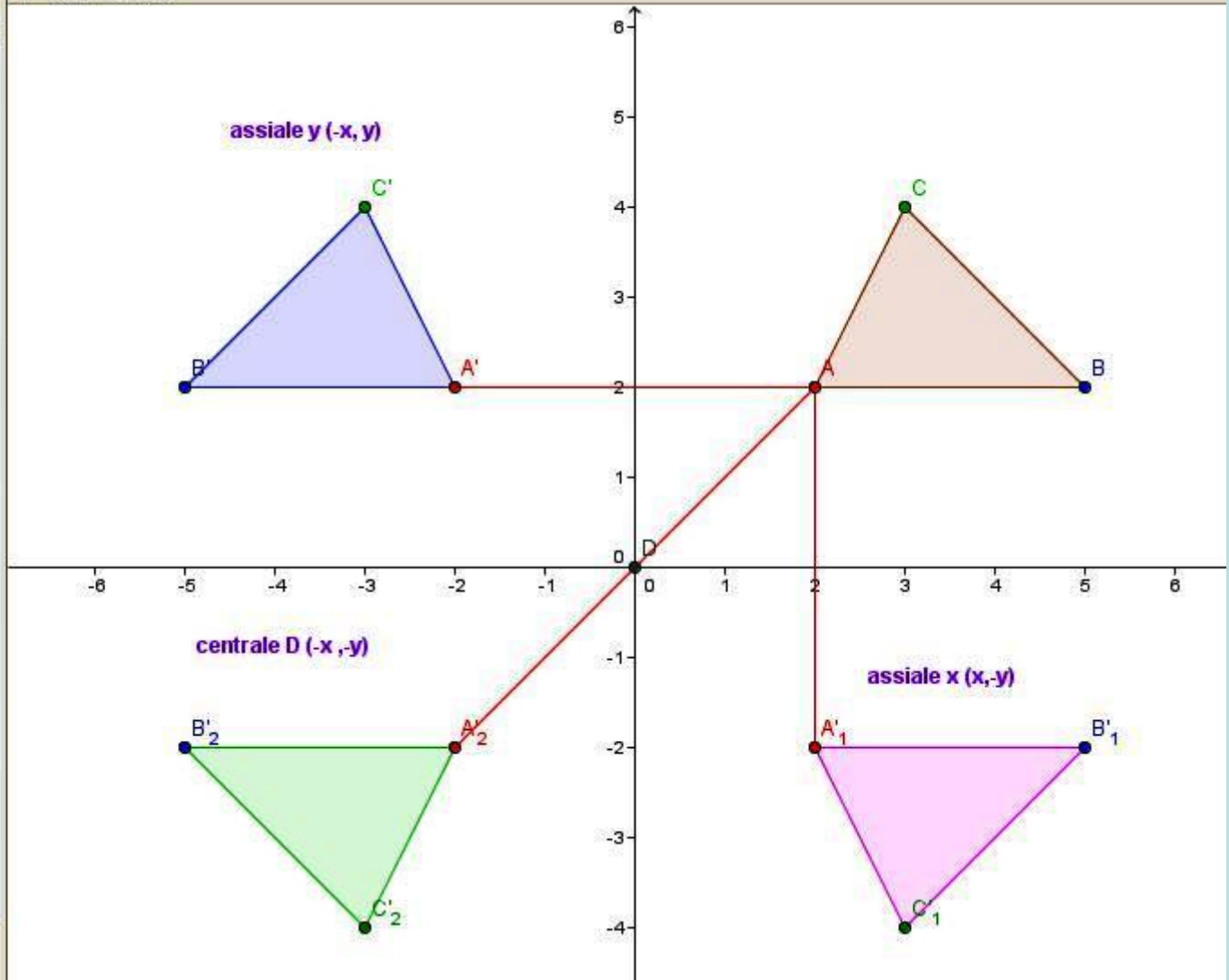


Vista Algebra

Vista Grafica

Punto

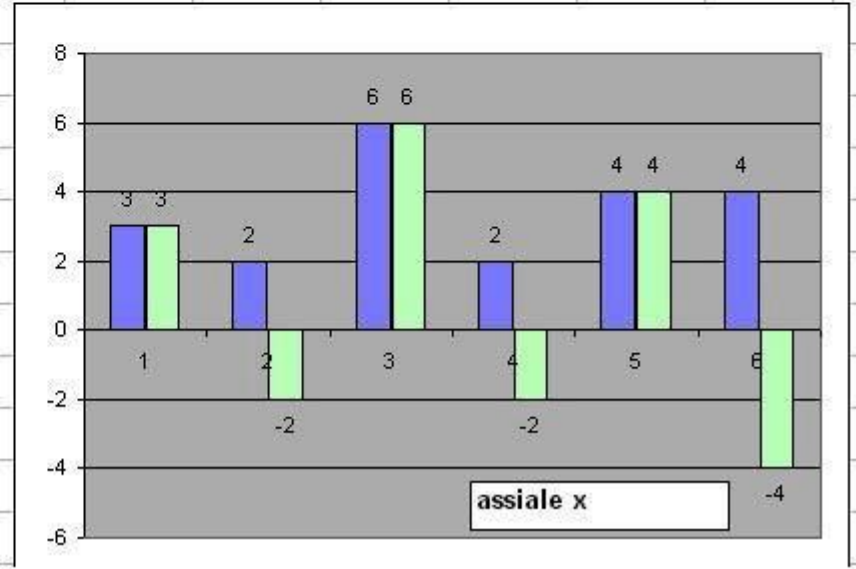
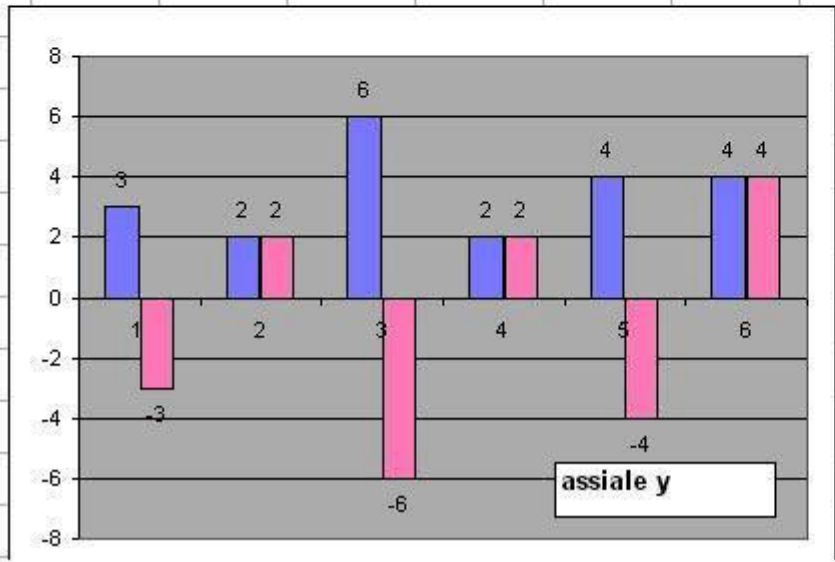
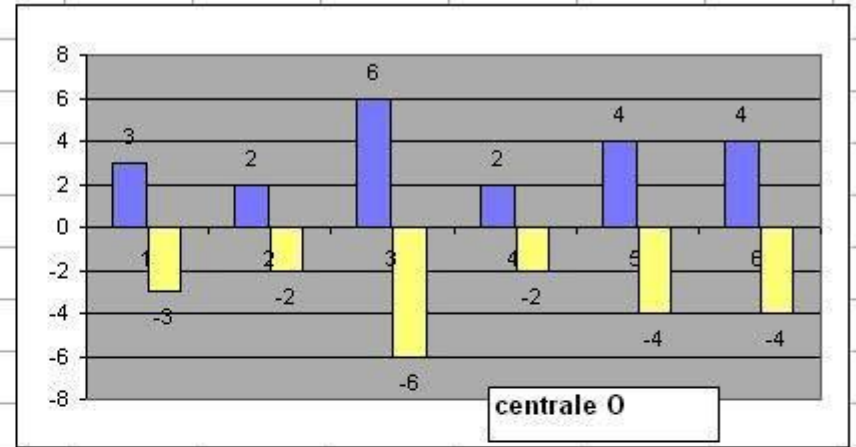
- $A = (2, 2)$
 - $A' = (-2, 2)$
 - $A'_1 = (2, -2)$
 - $A'_2 = (-2, -2)$
 - $B = (5, 2)$
 - $B' = (-5, 2)$
 - $B'_1 = (5, -2)$
 - $B'_2 = (-5, -2)$
 - $C = (3, 4)$
 - $C' = (-3, 4)$
 - $C'_1 = (3, -4)$
 - $C'_2 = (-3, -4)$
 - $D = (0, 0)$
- Segmento
- $a = 2.83$
 - $a' = 2.83$
 - $a'_1 = 2.83$
 - $a'_2 = 2.83$
 - $b = 2.24$
 - $b' = 2.24$
 - $b'_1 = 2.24$
 - $b'_2 = 2.24$
 - $c = 3$
 - $c' = 3$
 - $c'_1 = 3$
 - $c'_2 = 3$
 - $d = 4$
 - $e = 5.66$



cliccare

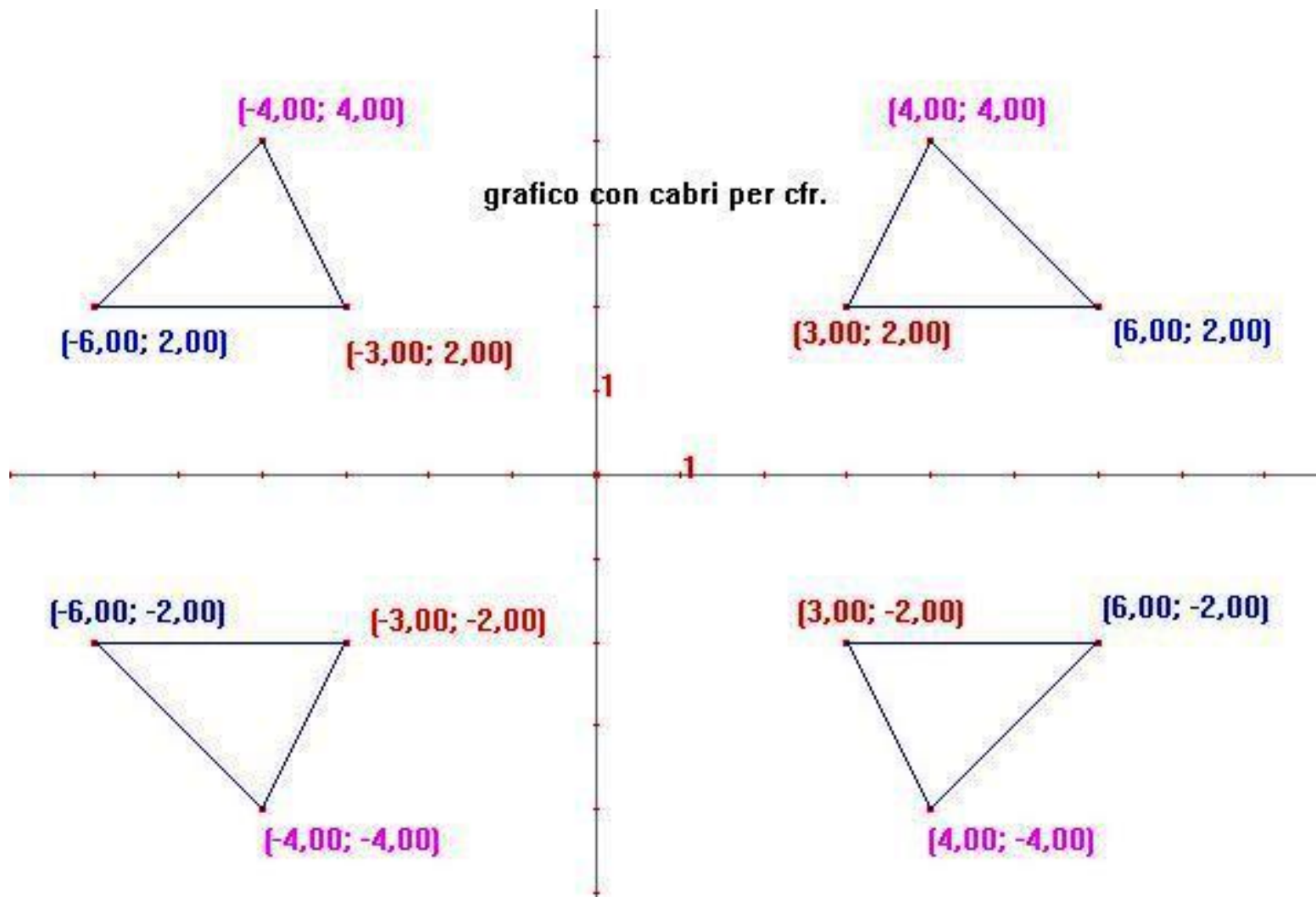


	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A		3	-3	3	-3	3	3							
A		2	2	2	-2	2	-2							
B		6	-6	6	-6	6	6							
B		2	2	2	-2	2	-2							
C		4	-4	4	-4	4	4							
C		4	4	4	-4	4	-4							
		P	Sy	P	SO	P	SX							



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[cliccare](#)



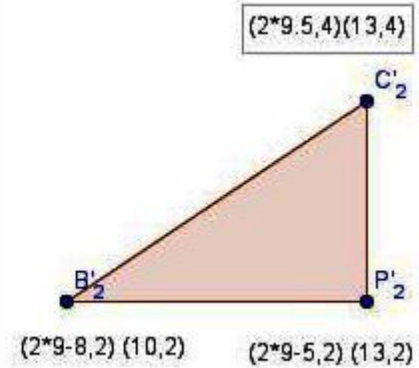
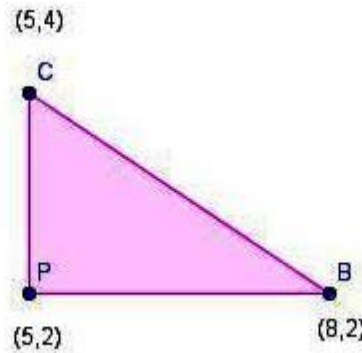
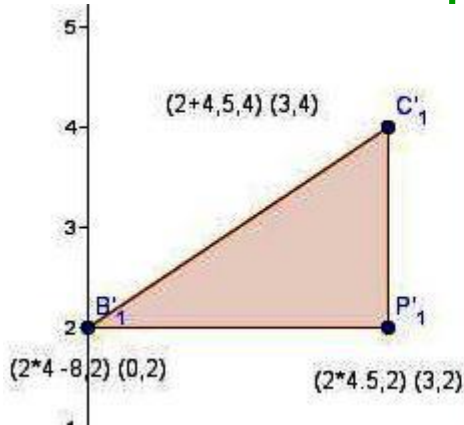
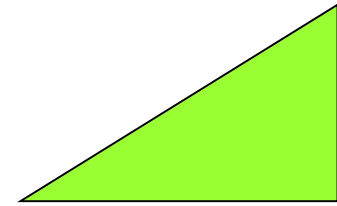
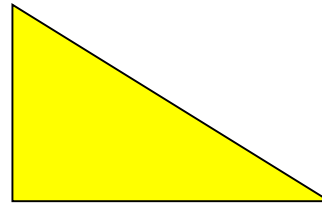
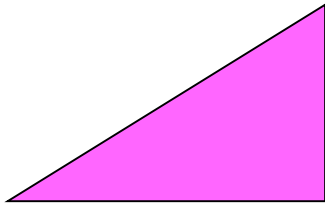
Simmetria poligono (triangolo)

**Relativa a retta parallela ad
asse y, asse x**

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Rette parallele asse y

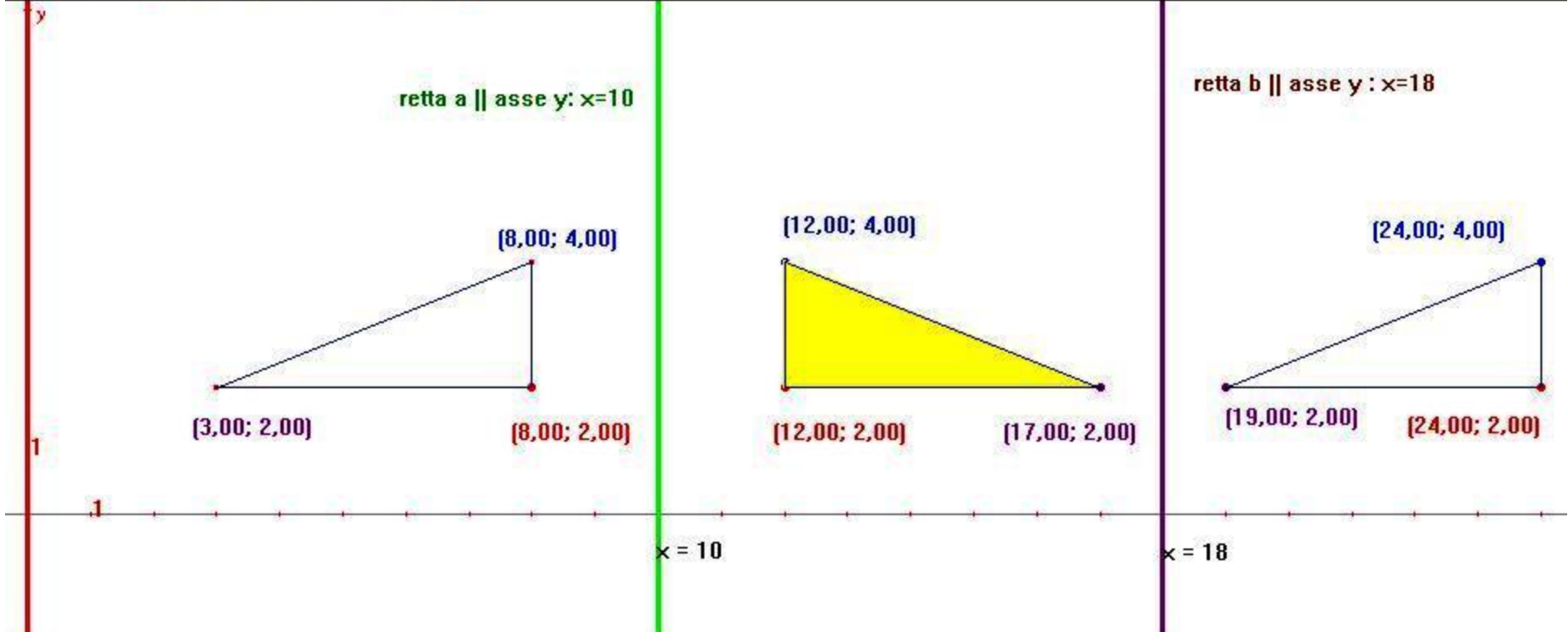
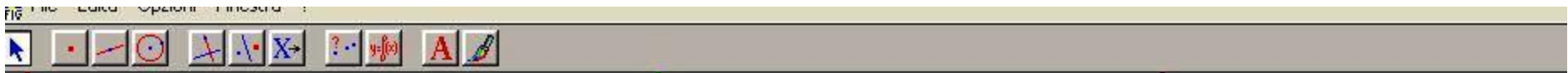


punto simmetrico $(2a - x, y)$

punto simmetrico $(2d - x, y)$

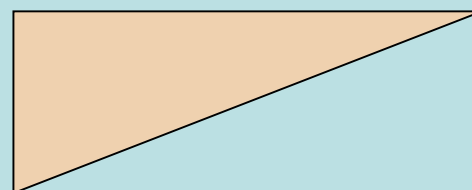
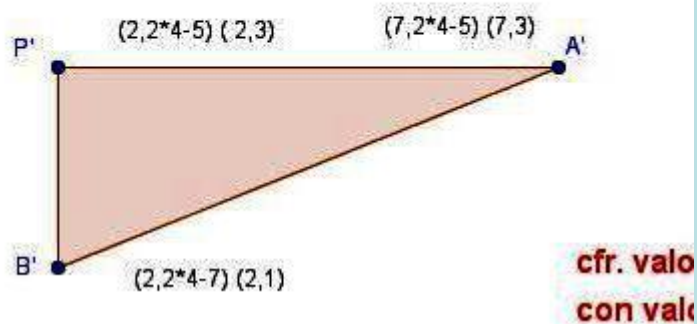
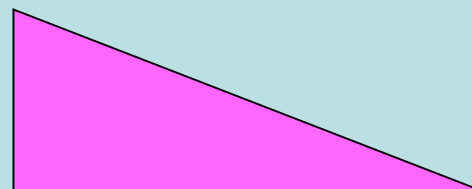
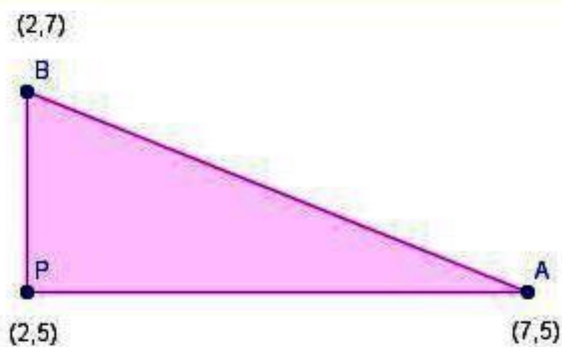
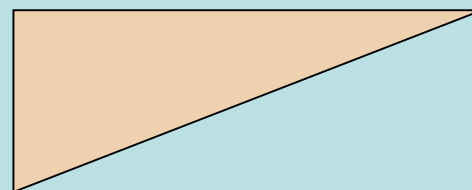
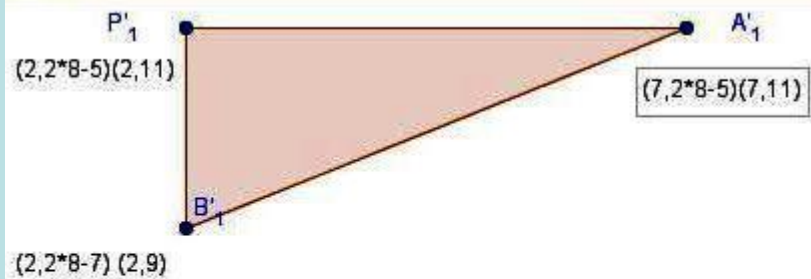
cfr. valori in vista algebra, forniti da programma
con valori calcolati da utente (formula)





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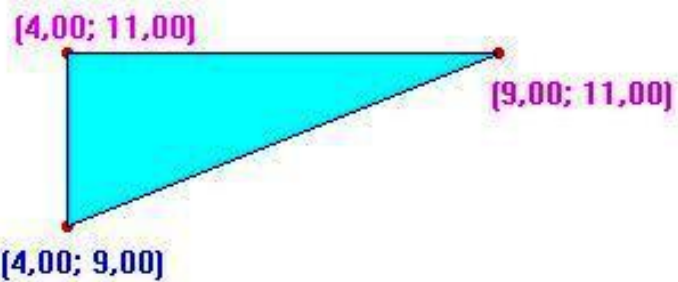


formula $(x, 2 \cdot a - y)$; $(x, 2 \cdot d - y)$

cfr. valori in vista algebra, forniti da programma
con valori calcolati da utente (formula)

Grafici powerpoint, integrati con
grafici e calcoli con geogebra

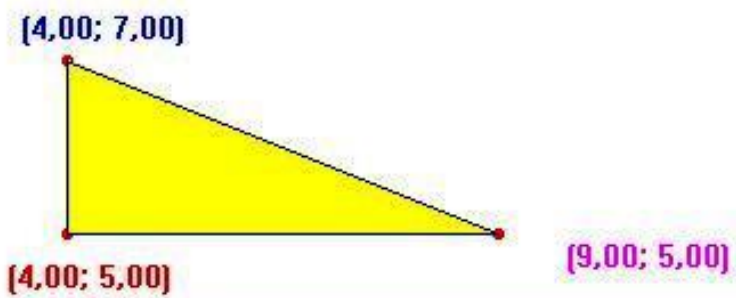




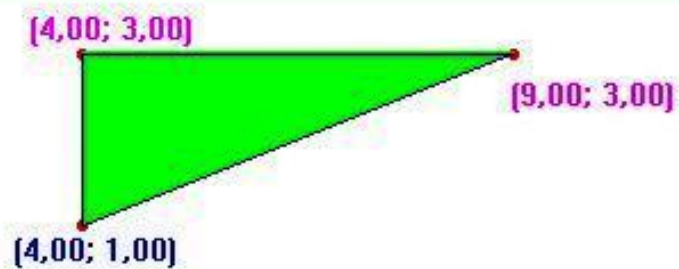
formula
 $[x, 2a - y]$
 $[x, 2d - y]$

retta || asse x

$$y = 8$$



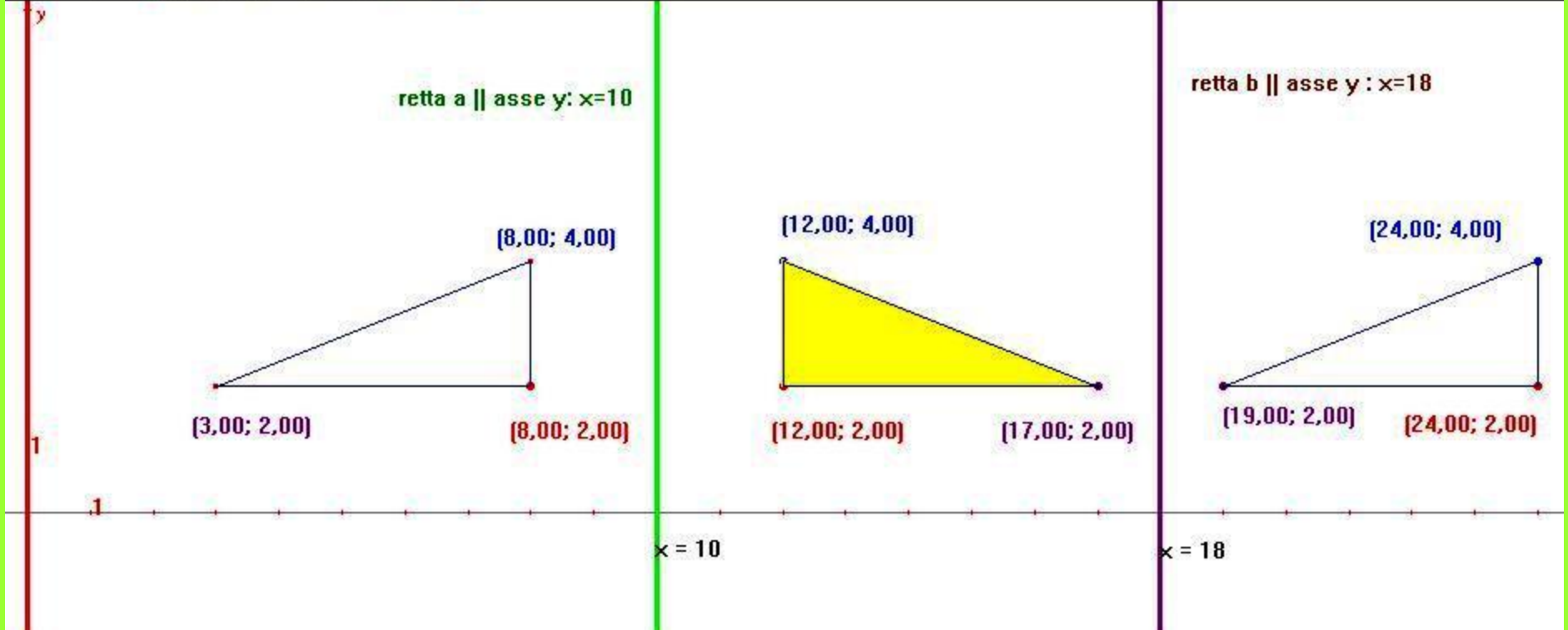
$$y = 4$$



retta parallela asse x

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Vista Algebra

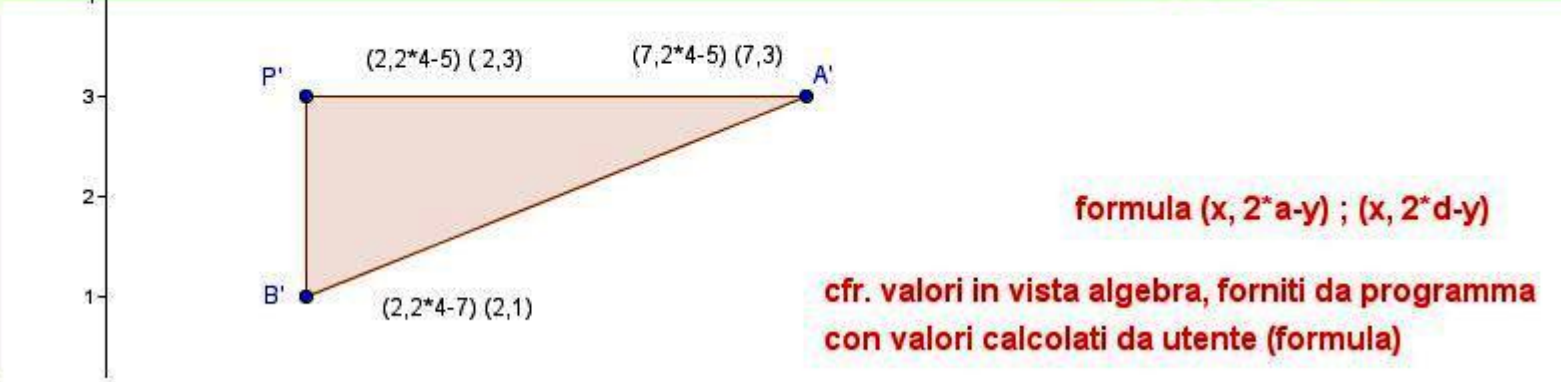
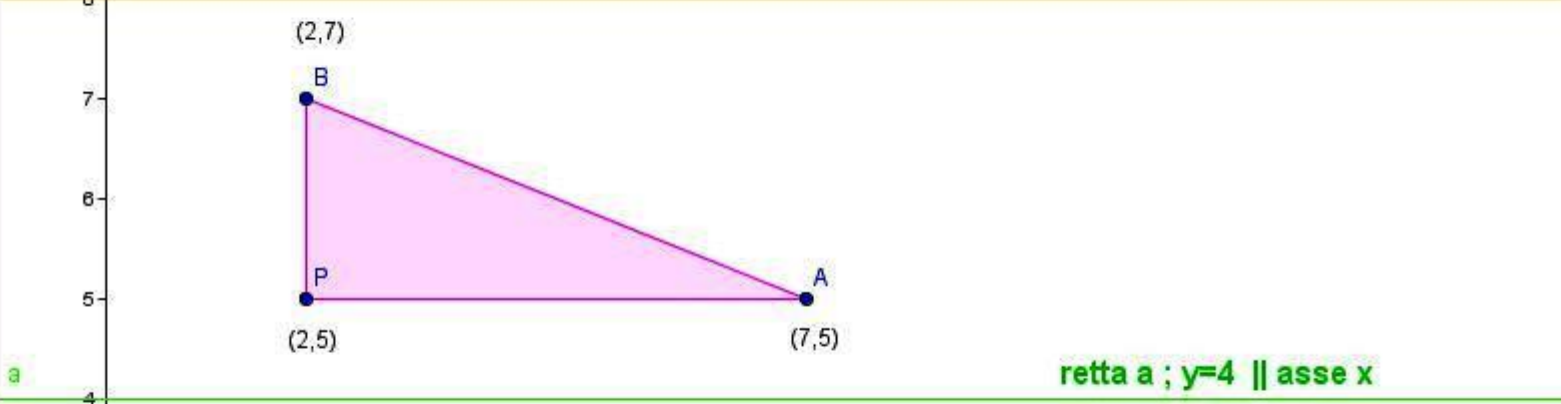
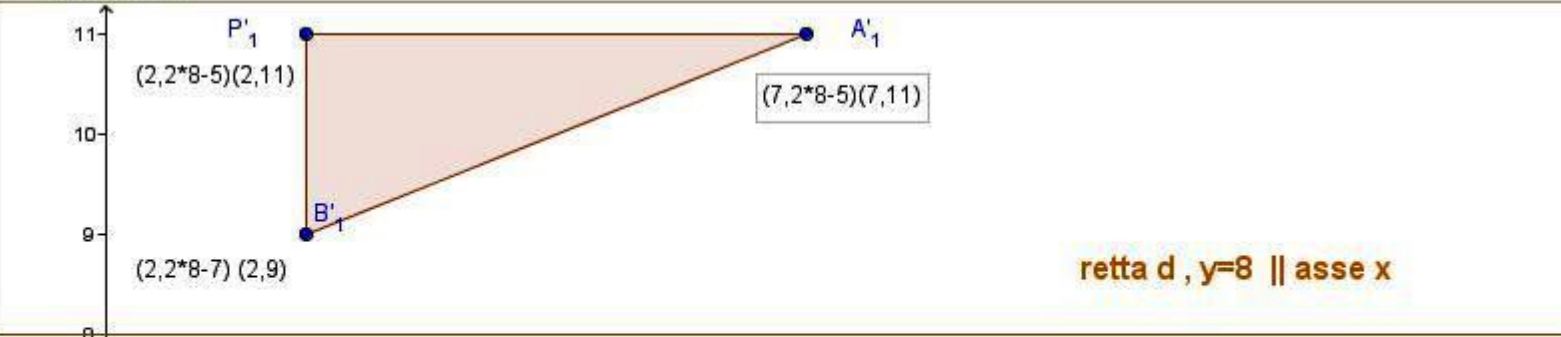
- Punto
 - $A = (7, 5)$
 - $A' = (7, 3)$
 - $A'_1 = (7, 11)$
 - $B = (2, 7)$
 - $B' = (2, 1)$
 - $B'_1 = (2, 9)$
 - $P = (2, 5)$
 - $P' = (2, 3)$
 - $P'_1 = (2, 11)$

- Retta
 - $a: y = 4$
 - $d: y = 8$

- Segmento
 - $a' = 2$
 - $a'_1 = 2$
 - $a_1 = 2$
 - $b = 5$
 - $b' = 5$
 - $b'_1 = 5$
 - $p = 5.39$
 - $p' = 5.39$
 - $p'_1 = 5.39$

- Triangolo
 - $poli1 = 5$
 - $poli1' = 5$
 - $poli1'_1 = 5$

Vista Grafica

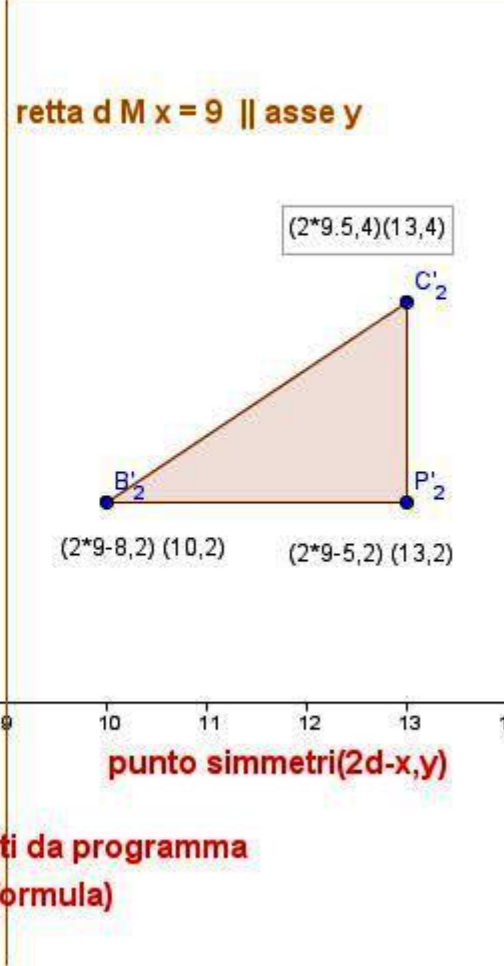
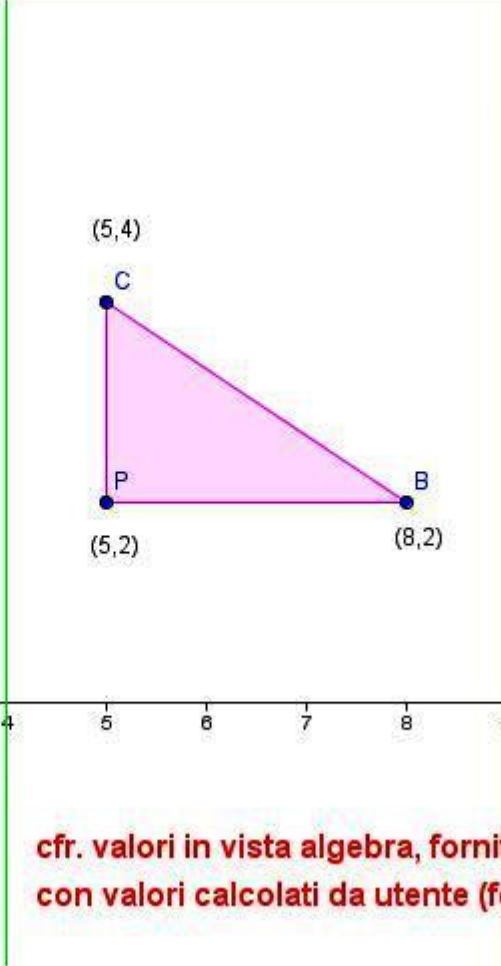
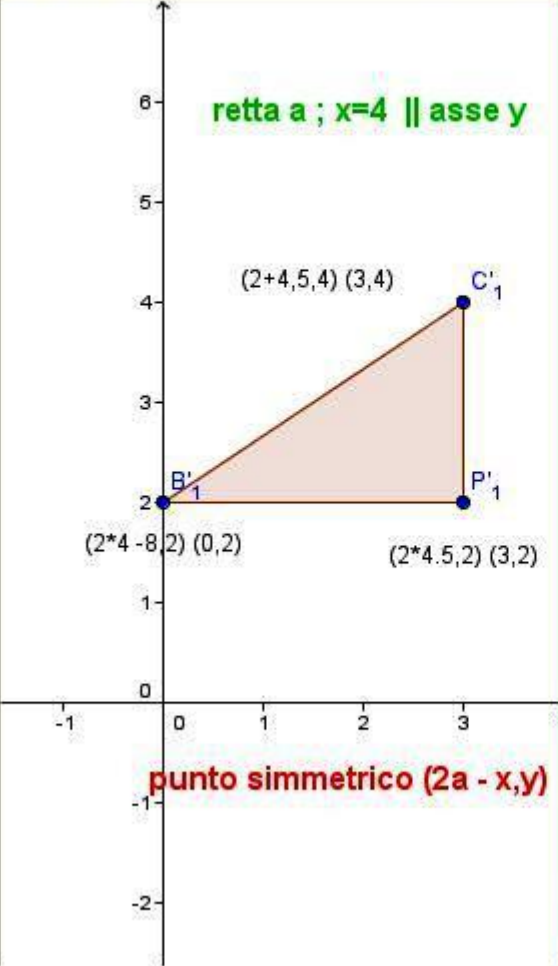




Vista Algebra

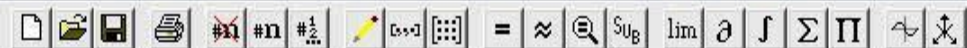
- Punto
 - $B = (8, 2)$
 - $B' = (-8, 2)$
 - $B'_1 = (0, 2)$
 - $B'_2 = (10, 2)$
 - $C = (5, 4)$
 - $C'_1 = (3, 4)$
 - $C'_2 = (13, 4)$
 - $P = (5, 2)$
 - $P'_1 = (3, 2)$
 - $P'_2 = (13, 2)$
- Retta
 - $a: x = 4$
 - $d: x = 9$
- Segmento
 - $b = 2$
 - $b'_1 = 2$
 - $b'_2 = 2$
 - $c = 3$
 - $c'_1 = 3$
 - $c'_2 = 3$
 - $p = 3.61$
 - $p'_1 = 3.61$
 - $p'_2 = 3.61$
- Triangolo

Vista Grafica



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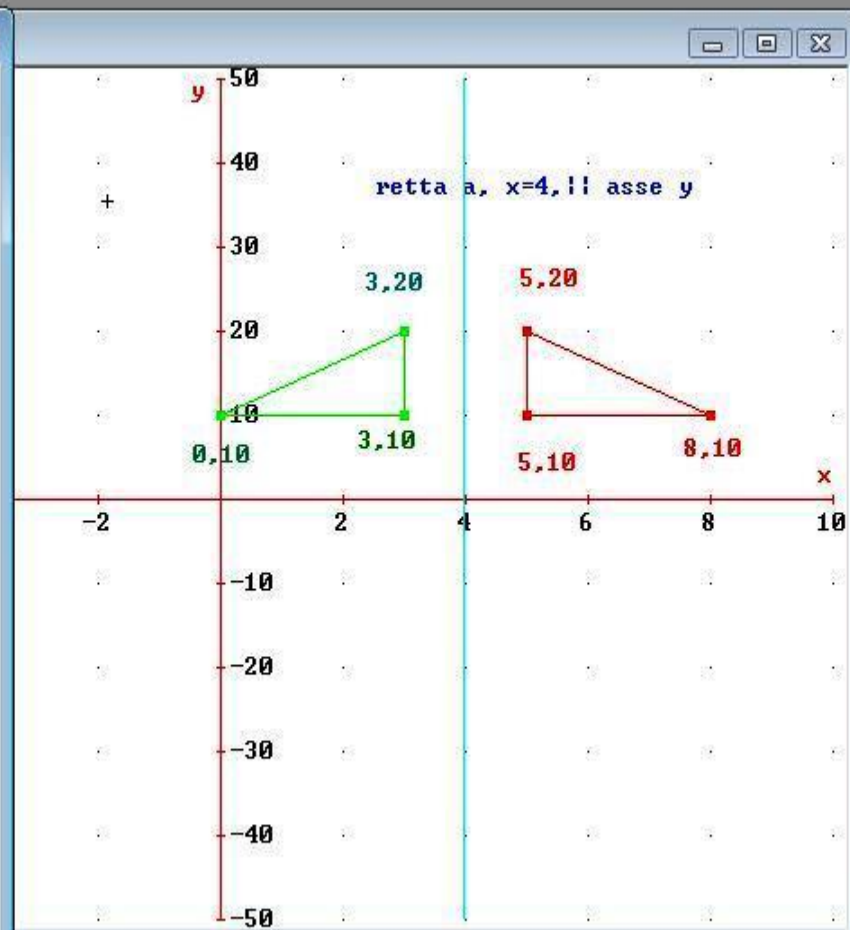


Algebra ???MTH

#1: "simmetria di poligono rispetto retta a : x=4 !! asse y"

#2: $x = 4$

#3: "formula per calcolare coordinate simmetrici"

#4: " $(2*a-x, y)$ "#5:
$$\begin{bmatrix} 5 & 10 \\ 8 & 10 \\ 5 & 20 \\ 5 & 10 \end{bmatrix}$$
#6: $[8 - 5, 10]$ #7: $[8 - 8, 10]$ #8: $[8 - 5, 20]$ #9: $[3, 10]$ #10: $[0, 10]$ #11: $[3, 20]$ #12: $[3, 10]$ #13:
$$\begin{bmatrix} 3 & 10 \\ 3 & 20 \\ 0 & 10 \\ 3 & 10 \end{bmatrix}$$


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Algebra ???MTH

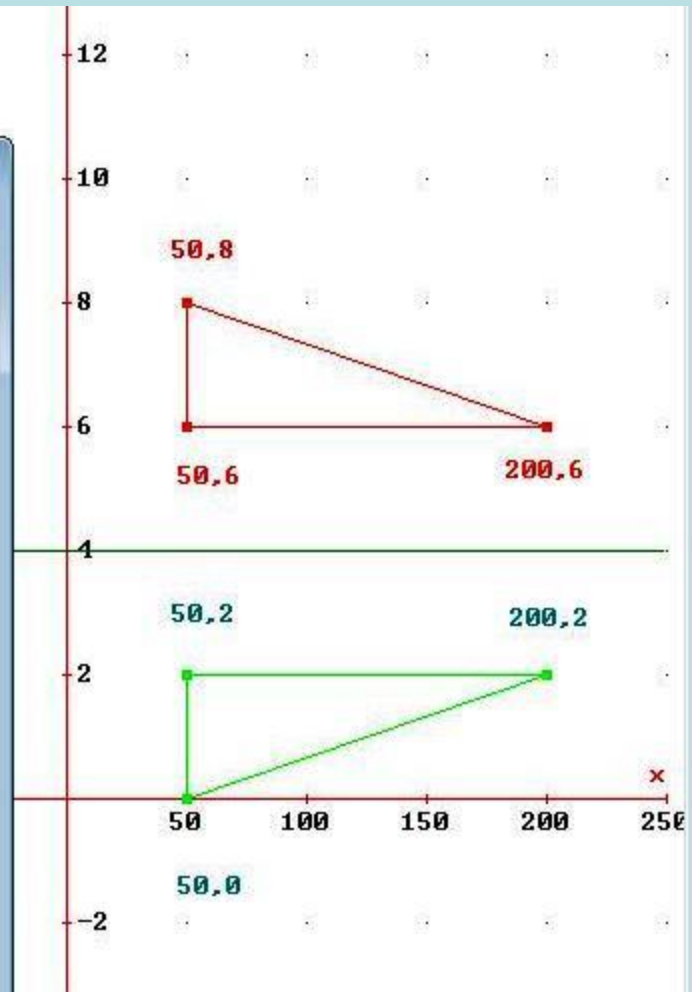
#2: "simmetria di poligono rispetto retta a : y=4 || asse x"

#3: $y = 4$

#4:
$$\begin{bmatrix} 50 & 6 \\ 200 & 6 \\ 50 & 8 \\ 50 & 6 \end{bmatrix}$$

#5: "formula $[x, 2a-y]$ "

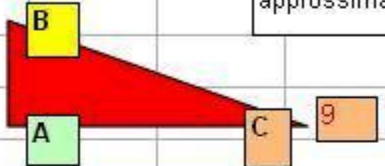
#6:
$$\begin{bmatrix} 50 & 2 \\ 200 & 2 \\ 50 & 0 \\ 50 & 2 \end{bmatrix}$$



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	A	B	C	D	E	F	G	H	I	J	K	L	M	N
xA		4	4	4	4			11						
yA		5	11	5	3			9						
xB		4	4	4	4			7						
yB		7	9	7	1			5						
cC		9	9	9	9			3						
yC		5	11	5	3			1						
poligono	origine	sopra	sotto											



11

9

7

5

3

1

approssimato...

9

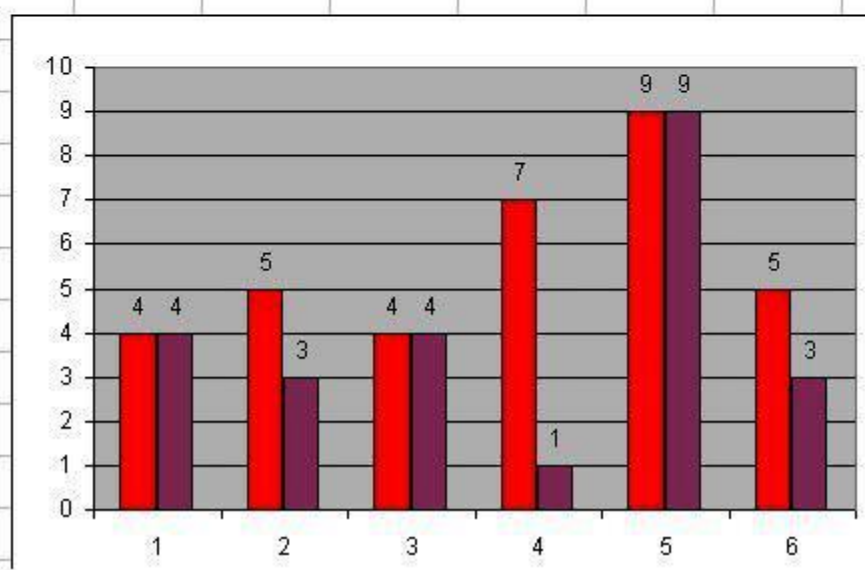
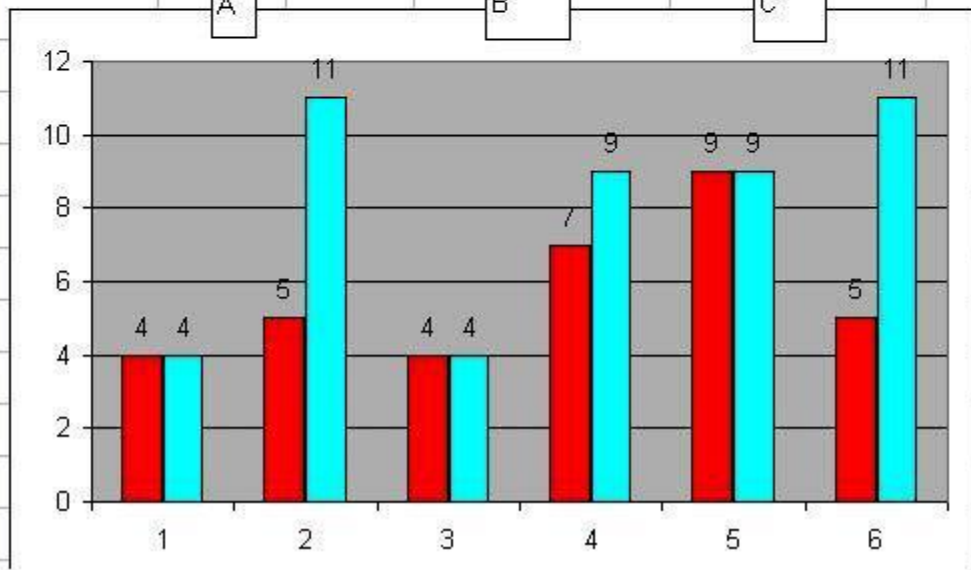
4

9

A

B

C



Fine descrizione
arrivederci

