18/12/2020

ASSE
DELLE
ASCISSE

P (x, y)

COORDINATE

ORDINATA

ASCISSA

O

y

x

x

ASSE DELLE
ORDINATE

II QUADRANTE

I QUADRANTE

A

3

2 E

1

B

-2

-4

O

2

4

D

3

2

C

III QUADRANTE
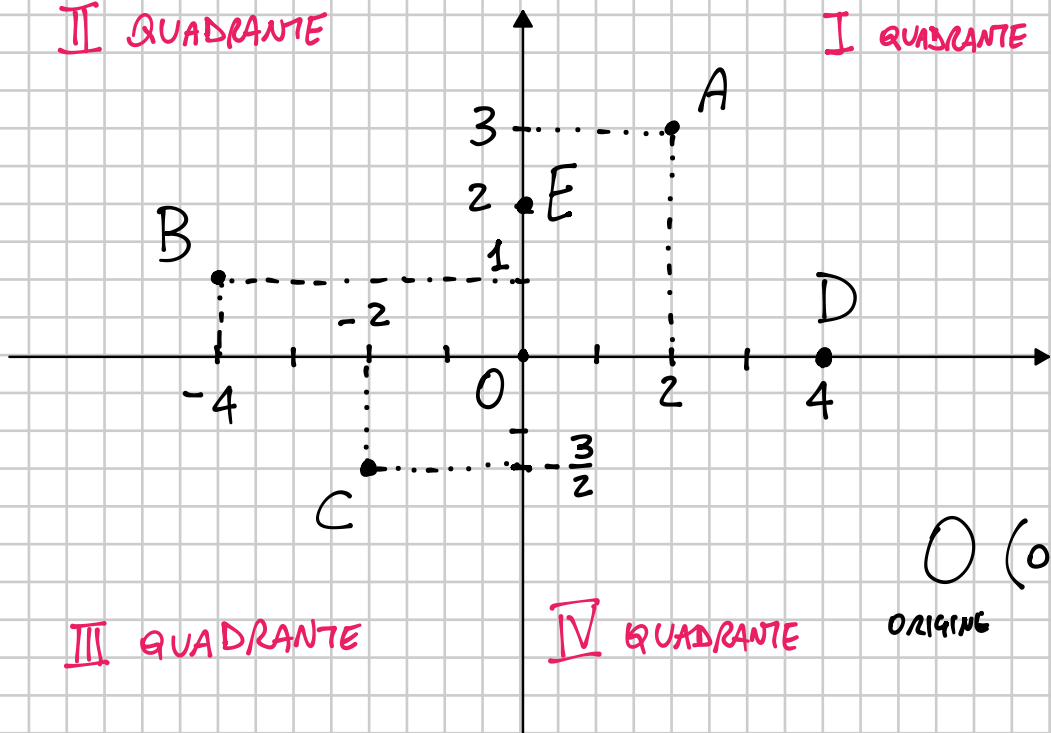
IV QUADRANTE

$A (2, 3)$

$B (-4, 1)$

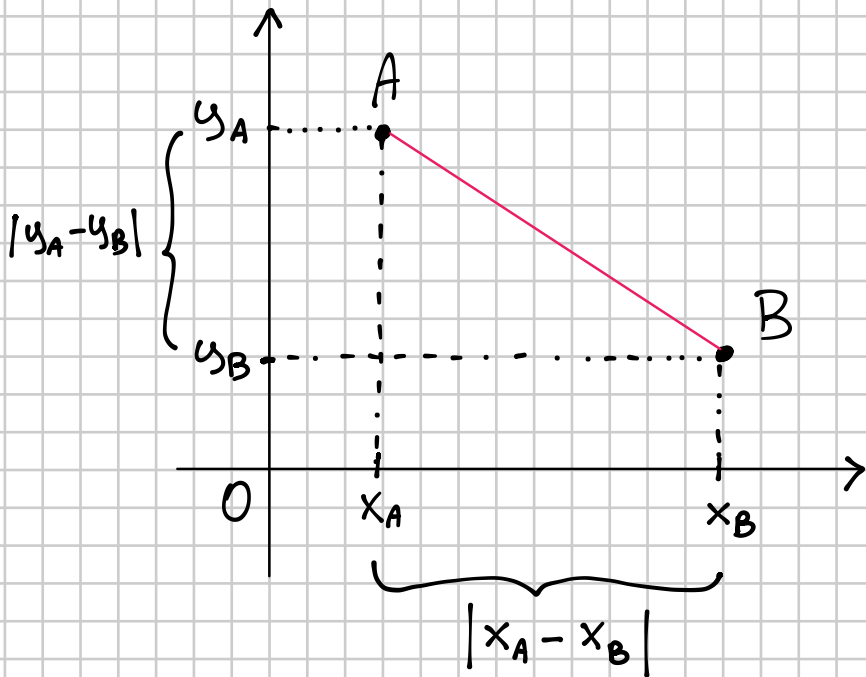$C \left(-2, -\frac{3}{2}\right)$

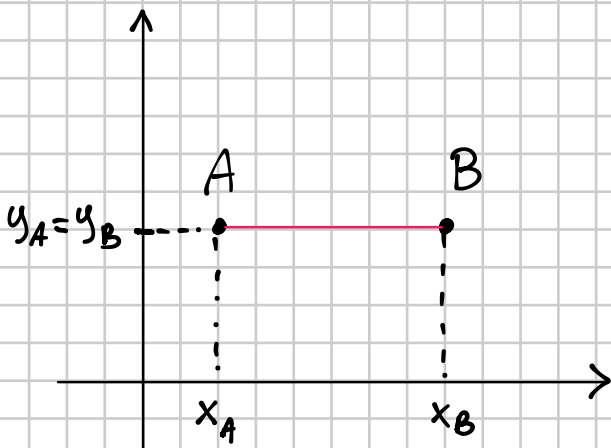$D (4, 0)$

$O (0, 0)$

ORIGINE

$E (0, 2)$

DISTANZA FRA PUNTI
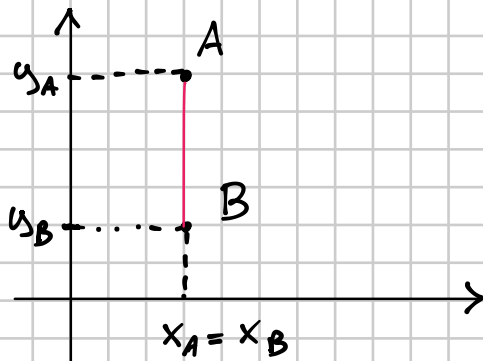
$$A(x_A, y_A) \qquad B(x_B, y_B)$$

$$\overline{AB} = \sqrt{(x_A - x_B)^2 + (y_A - y_B)^2}$$

A e B possono essere in qualsiasi quadrante

$$\sqrt{a^2} = |a|$$

$$\overline{AB} = \sqrt{(x_A - x_B)^2} = |x_A - x_B|$$

$$\overline{AB} = |y_A - y_B|$$

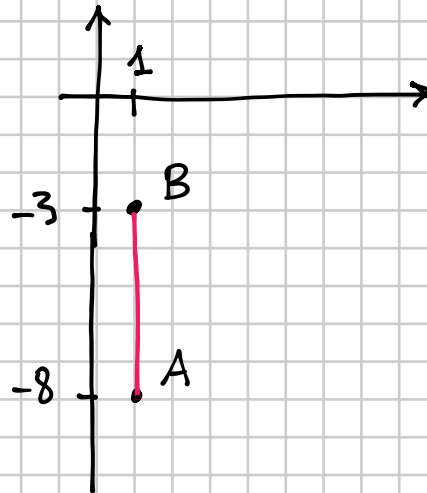| 21	$A(1, -8)$	$B(1, -3)$	[5]	DETERMINARE $\overline{AB}$
22	$A(2, -1)$	$B(-1, 2)$	$[3\sqrt{2}]$	
23	$A(3, -2)$	$B(-1, -2)$	[4]	

21 $\quad A(\overset{x_A\ y_A}{1,-8}) \quad B(\overset{x_B\ y_B}{1,-3})$

$$\overline{AB} = |y_A - y_B| =$$

$$= |-8 - (-3)| =$$

$$= |-8 + 3| = |-5| = 5$$

22 $\quad A(2, -1) \quad B(-1, 2)$
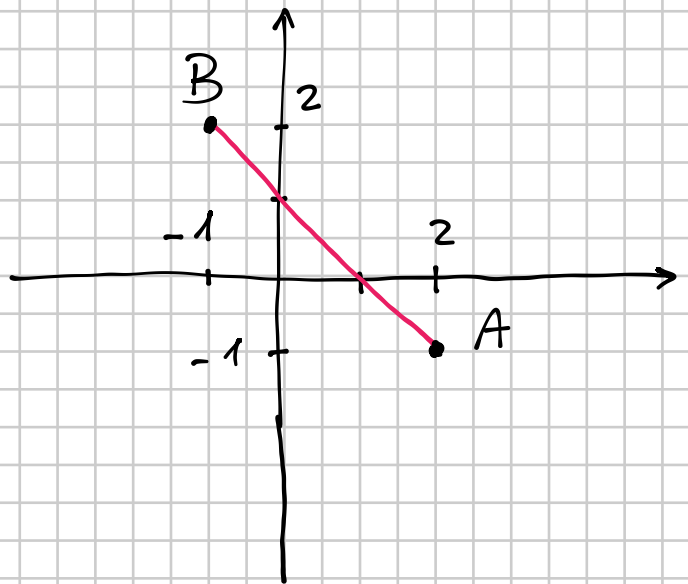
$$\overline{AB} = \sqrt{(x_A - x_B)^2 + (y_A - y_B)^2} =$$

$$= \sqrt{(2 - (-1))^2 + (-1 - 2)^2} =$$

$$= \sqrt{(2+1)^2 + (-3)^2} = \sqrt{9 + 9} = \sqrt{18} = \sqrt{3^2 \cdot 2} = 3\sqrt{2}$$

23 $\quad A(3, -2) \quad B(-1, -2)$
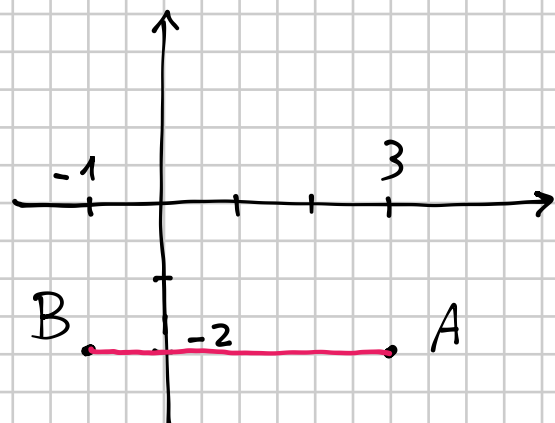
$$\overline{AB} = |x_A - x_B| = |3 - (-1)| = 4$$

26 $A\left(\dfrac{3}{4}, \dfrac{1}{2}\right)$ $B\left(-\dfrac{1}{4}, \dfrac{5}{2}\right)$ $[\sqrt{5}]$

27 $A(1 - \sqrt{3}, 4)$ $B(1 + \sqrt{3}, 6)$ $[4]$

26

$$\overline{AB} = \sqrt{\left(\dfrac{3}{4} - \left(-\dfrac{1}{4}\right)\right)^2 + \left(\dfrac{1}{2} - \dfrac{5}{2}\right)^2} =$$

$$= \sqrt{\left(\dfrac{3}{4} + \dfrac{1}{4}\right)^2 + \left(-\dfrac{4}{2}\right)^2} =$$

$$= \sqrt{1 + 4} = \sqrt{5}$$

27 $A(1 - \sqrt{3}, 4)$ $B(1 + \sqrt{3}, 6)$

$$\overline{AB} = \sqrt{(1 - \sqrt{3} - (1 + \sqrt{3}))^2 + (4 - 6)^2} =$$

$$= \sqrt{(1 - \sqrt{3} - 1 - \sqrt{3})^2 + (-2)^2} = \sqrt{(-2\sqrt{3})^2 + 4} =$$

$$= \sqrt{12 + 4} = \sqrt{16} = 4$$