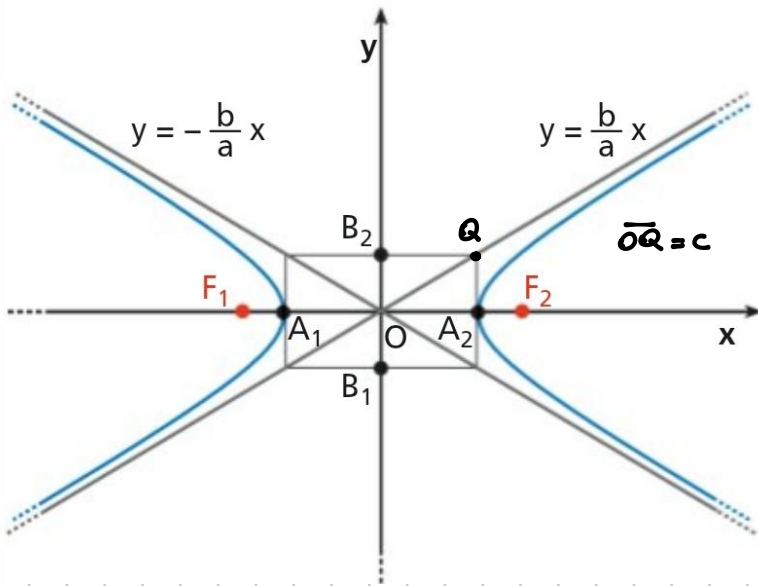


## EQUAZIONE DELL'IPERBOLE

COL FUOCHI SULL'ASSE X

$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$$



a = SEMIASSE TRASVERSA

VERTICI

$$A_1(-a, 0) \quad A_2(a, 0)$$

ASINTOTI

$$y = -\frac{b}{a}x \quad y = \frac{b}{a}x$$

FUOCHI

$$F_1(-c, 0) \quad F_2(c, 0)$$

$$a^2 + b^2 = c^2$$

ECCENTRICITÀ

$$e = \frac{c}{a}$$

IPERBOLE COL FUOCHI SULL'ASSE y

$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = -1$$

VERTICI

$$B_1(0, -b) \quad B_2(0, b)$$

ASINTOTI

$$y = -\frac{b}{a}x \quad y = \frac{b}{a}x$$

FUOCHI

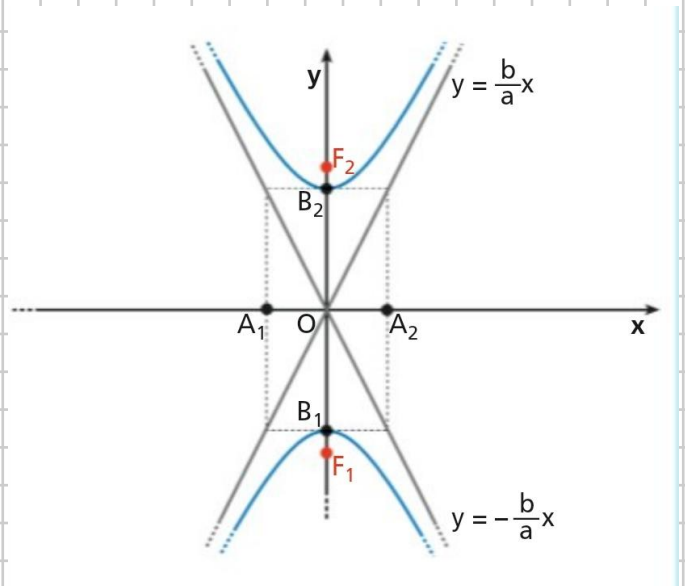
$$F_1(0, -c) \quad F_2(0, c)$$

$$a^2 + b^2 = c^2$$

b = SEMIASSE TRASVERSA

ECCENTRICITÀ

$$e = \frac{c}{b}$$



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$$25x^2 - y^2 = -25$$

Trovare i vari parametri,  
punti, ecc....

$$x^2 - \frac{y^2}{25} = -1$$

↑ iperbole coi fuochi sull'asse  $y$

$$a = 1 \quad b = 5$$

SEMIPASSE TRASVERSO

$$c = \sqrt{a^2 + b^2} = \sqrt{1 + 25} = \sqrt{26}$$

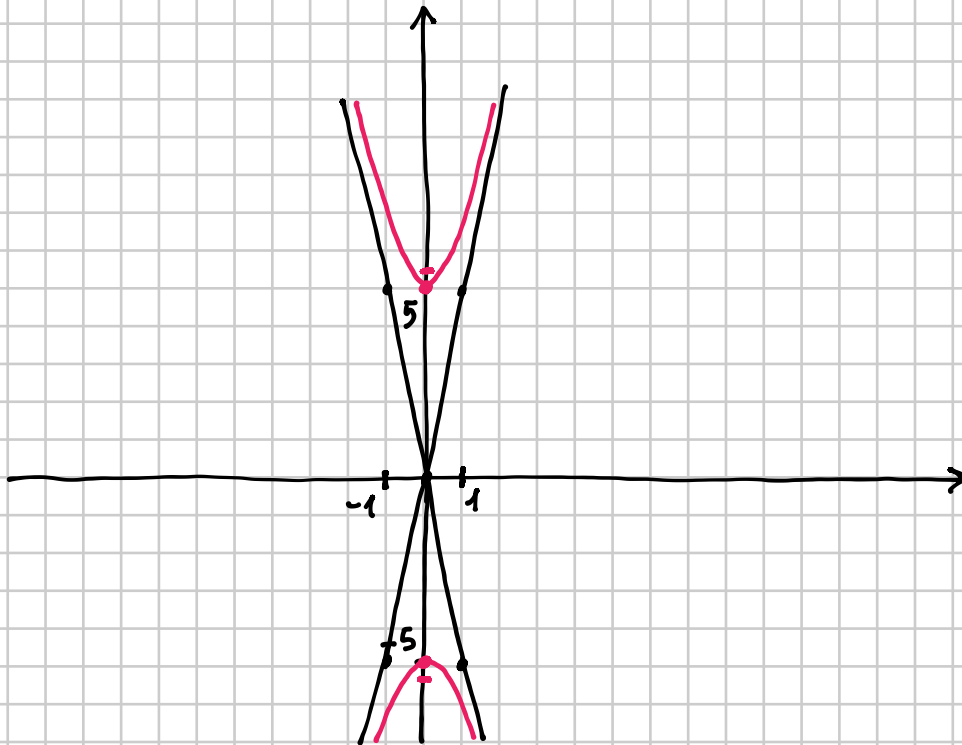
VERTICI  $B_1(0, -5)$   $B_2(0, 5)$

FUOCHI  $F_1(0, -\sqrt{26})$   $F_2(0, \sqrt{26})$

ECCENTRICITÀ  $e = \frac{c}{b} = \frac{\sqrt{26}}{5}$

ASINTOTI  $y = -5x$   $y = 5x$

$$y = \pm \frac{b}{a}x$$



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$$x^2 - \frac{y^2}{4} = 1$$

FUOCHI  
SU  
ASSE X

VERTICI  $A_1(-1, 0)$   
 $A_2(1, 0)$

$$a = 1 \quad b = 2$$

$$c = \sqrt{1^2 + 2^2} = \sqrt{5}$$

FUOCHI  $F_1(-\sqrt{5}, 0)$

$F_2(\sqrt{5}, 0)$

ASINTOTI

ECCENTRICITÀ

$$y = -2x \quad y = 2x$$

$$e = \frac{c}{a} = \sqrt{5}$$

