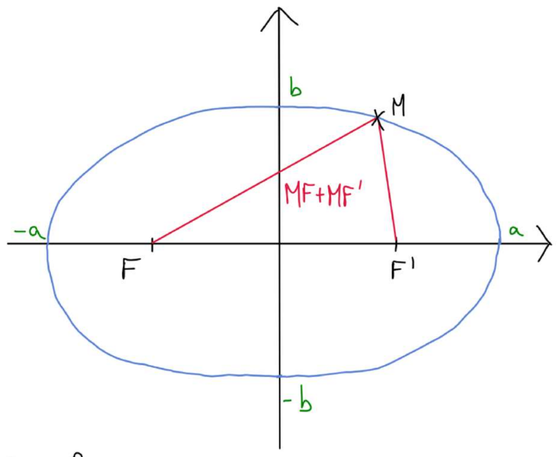
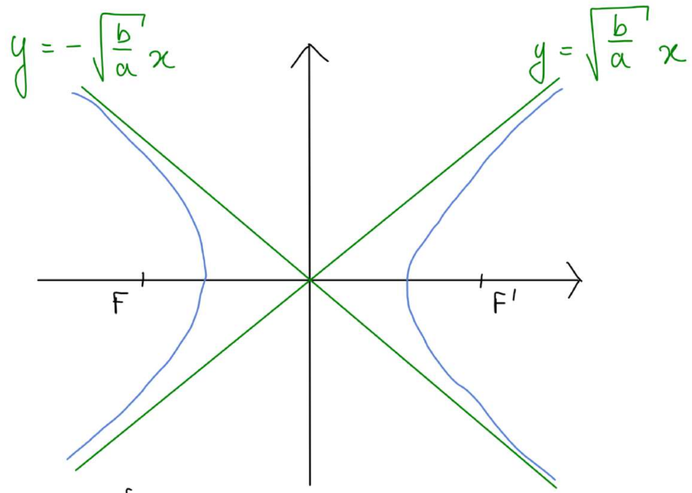
FIGURE 1 : Les différentes coniques

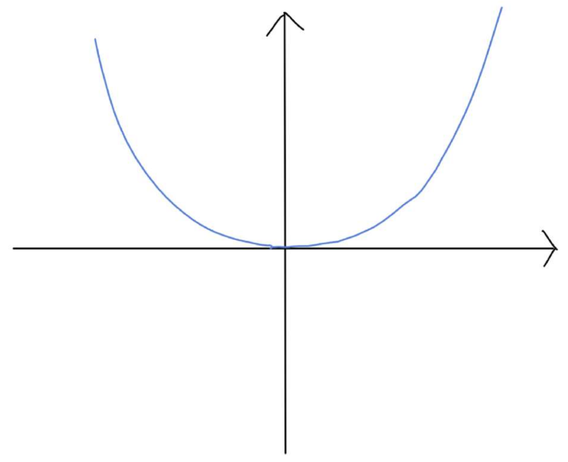


$$\mathcal{E} = \left\{(x,y) \in \mathcal{P} \mid \left(\frac{x}{a}\right)^2 + \left(\frac{y}{b}\right)^2 = 1\right\}$$

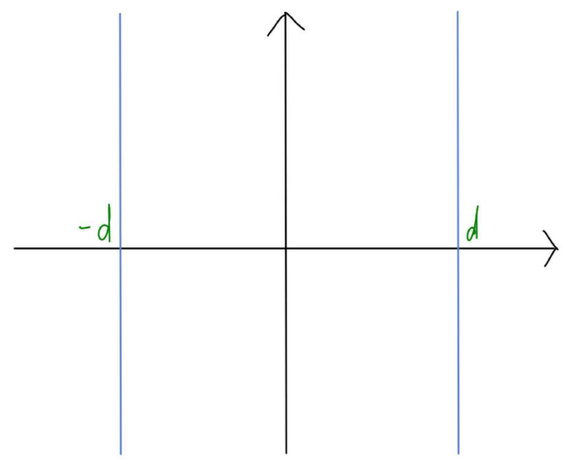


$$\mathcal{H} = \left\{(x,y) \in \mathcal{P} \mid \left(\frac{x}{a}\right)^2 - \left(\frac{y}{b}\right)^2 = 1\right\}$$

$$\mathcal{DS} = \left\{(x,y) \in \mathcal{P} \mid y^2 = \frac{b}{a}\,x\right\}$$



$$\mathcal{B} = \left\{(x,y) \in \mathcal{P} \mid y = 2px^2\right\}$$



$$\mathcal{DP} = \left\{(x,y) \in \mathcal{P} \mid x^2 = d\right\}.$$

FIGURE 2 : Sections du cône

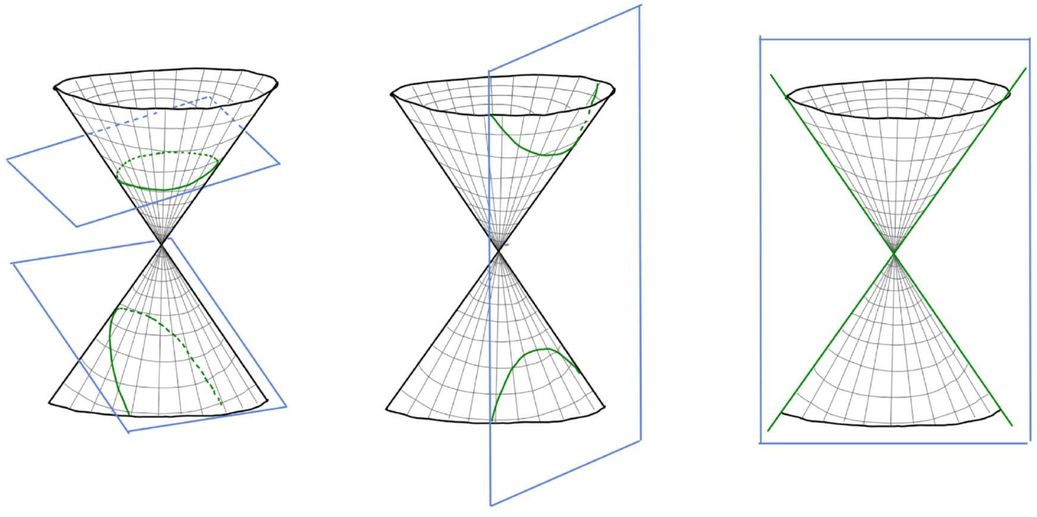
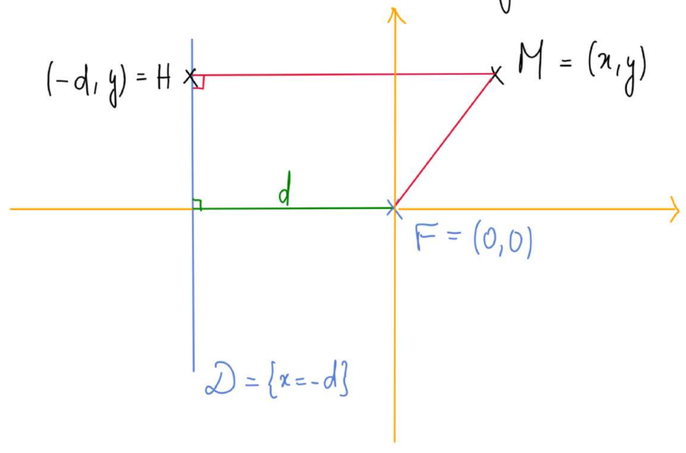


FIGURE 3 : Foyer - directrice



$$M \in \mathcal{C} \iff MF = e\,MH \iff x^2 + y^2 = e^2(x+d)^2$$
$$\iff (1-e^2)x^2 + y^2 - 2ed\,x - e^2d^2 = 0$$