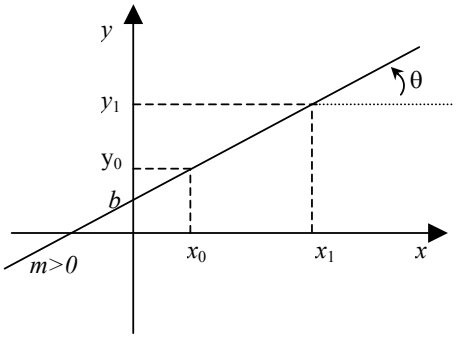
Geometria Analítica

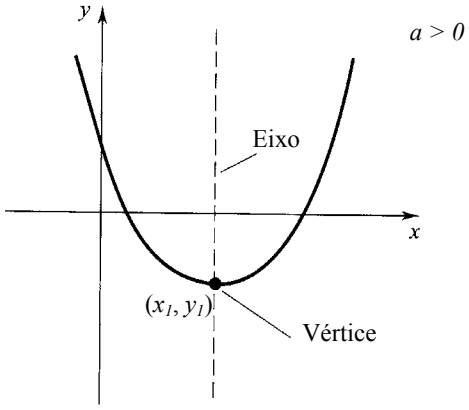
1. Recta

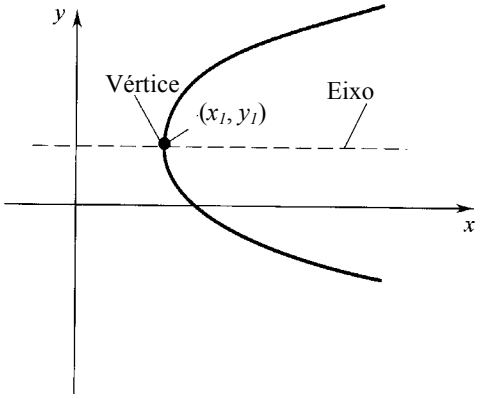
$$y - y_0 = \frac{y_1 - y_0}{x_1 - x_0}(x - x_0)$$

$$y = m\,x + b \;\; ; \qquad m = \frac{y_1 - y_0}{x_1 - x_0} = \operatorname{tg}\theta$$



2. Parábola





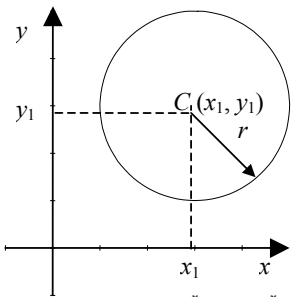
$$y = ax^2 + bx + c$$
$$y = a(x - x_1)^2 + y_1$$

$$x = ay^2 + by + c$$
$$x = a(y - y_1)^2 + x_1$$

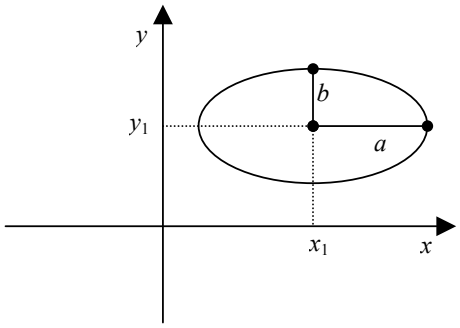
3. Circunferência

$$(x - x_1)^2 + (y - y_1)^2 = r^2$$

Centro: $C \angle (x_1, y_1)$
Raio = r



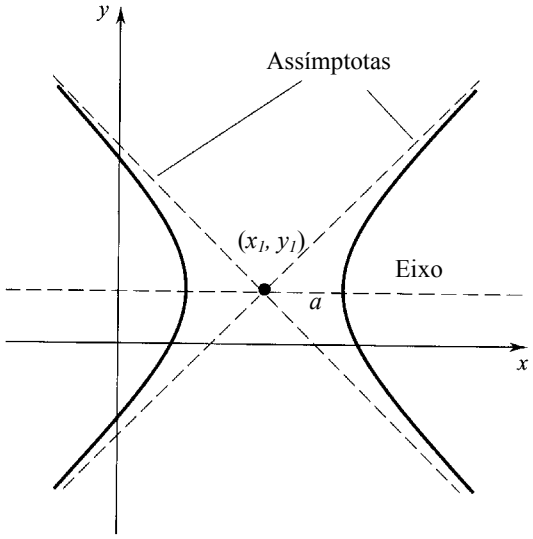
4. Elipse



$$\frac{(x-x_1)^2}{a^2}+\frac{(y-y_1)^2}{b^2}=1$$

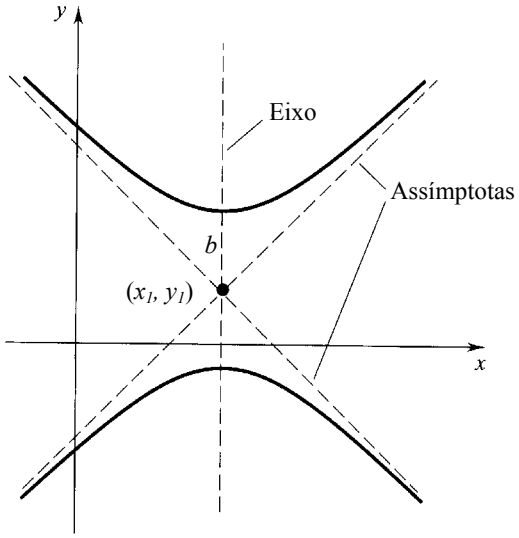
Centro: $C\angle(x_1, y_1)$

5. Hipérbole



$$\frac{(x-x_1)^2}{a^2}-\frac{(y-y_1)^2}{b^2}=1$$

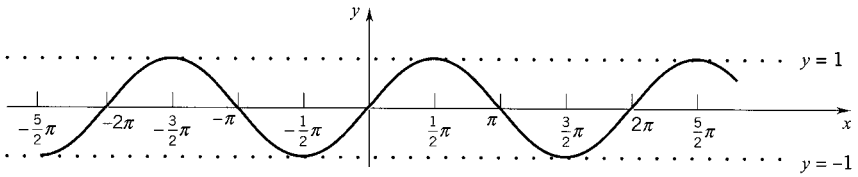
Centro: $C\angle(x_1, y_1)$



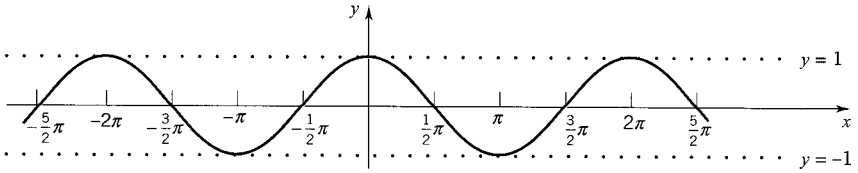
$$\frac{(y-y_1)^2}{b^2}-\frac{(x-x_1)^2}{a^2}=1$$

Centro: $C\angle(x_1, y_1)$

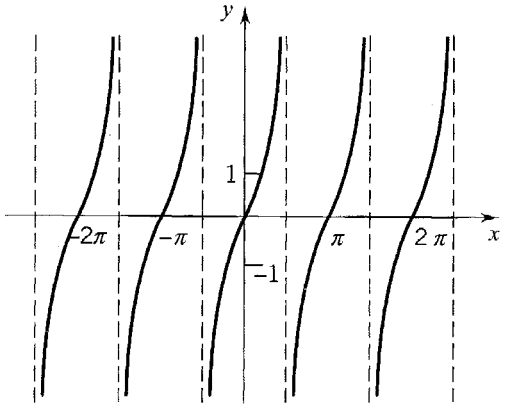
Funções trigonométricas



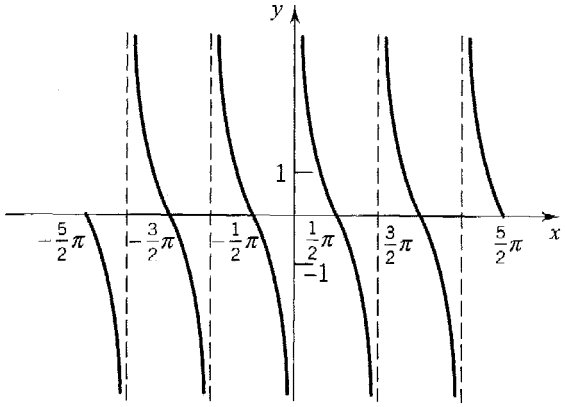
y = sen x



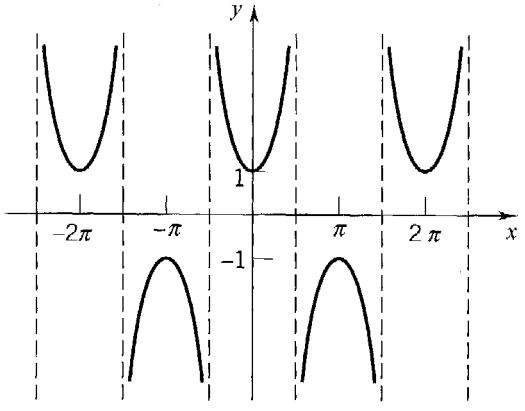
y = cos x



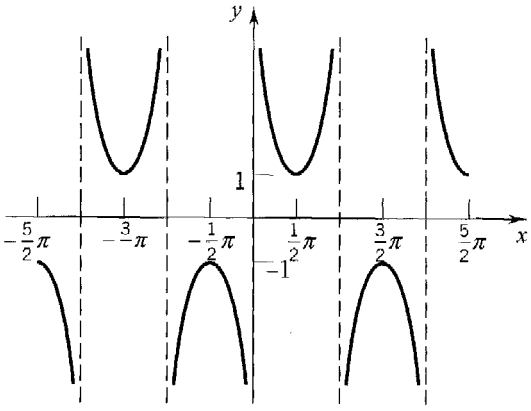
y = tg x



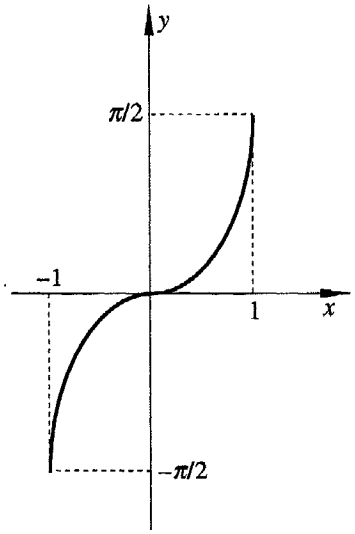
y = cotg x



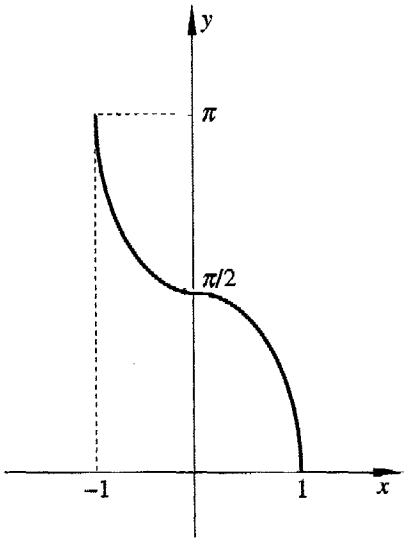
y = sec x



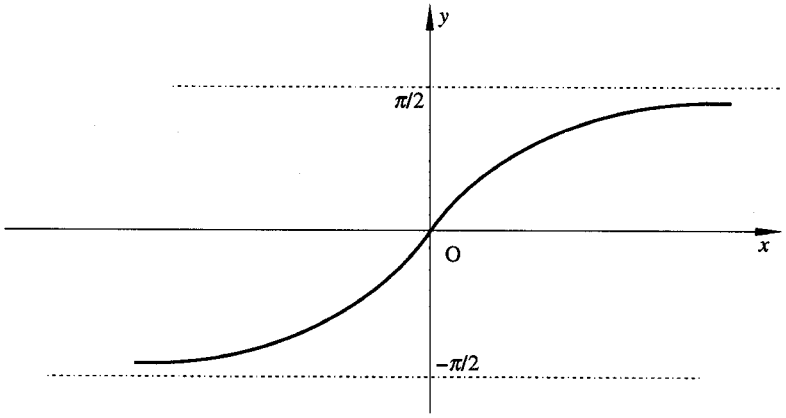
y = cosec x



y = arc sen x

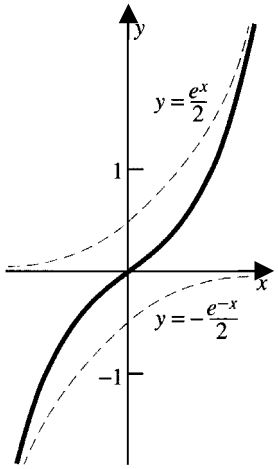


y = arc cos x

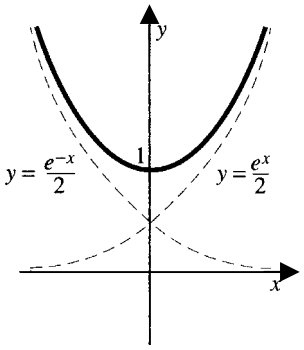


y = arc tg x

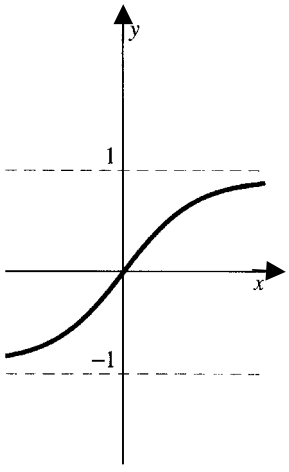
Funções hiperbólicas



y = senh x



y = cosh x



y = tgh x