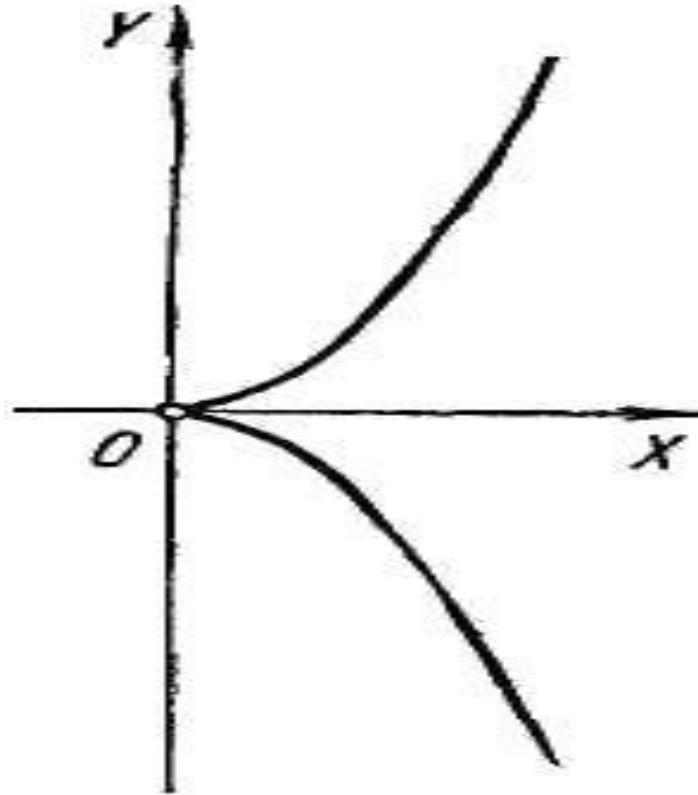


# Некоторые кривые

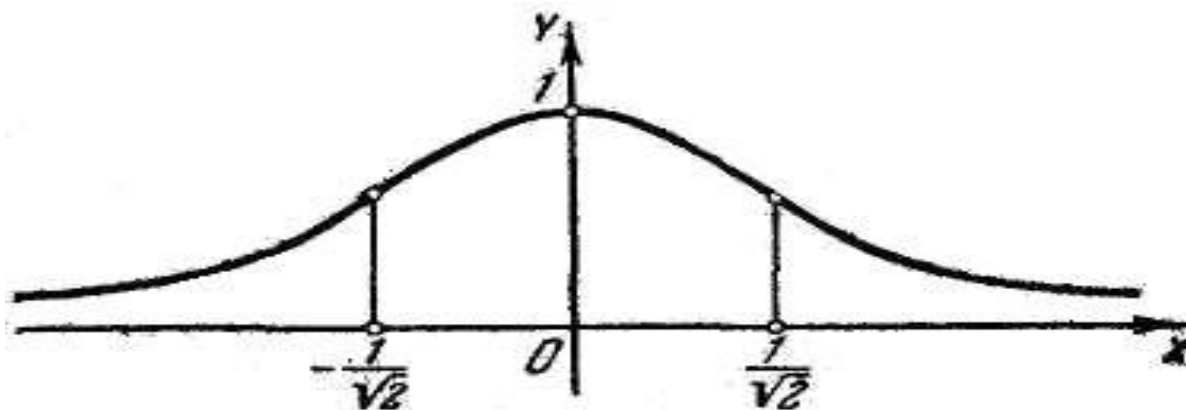


Полукубическая парабола

$$y^2 = x^3$$

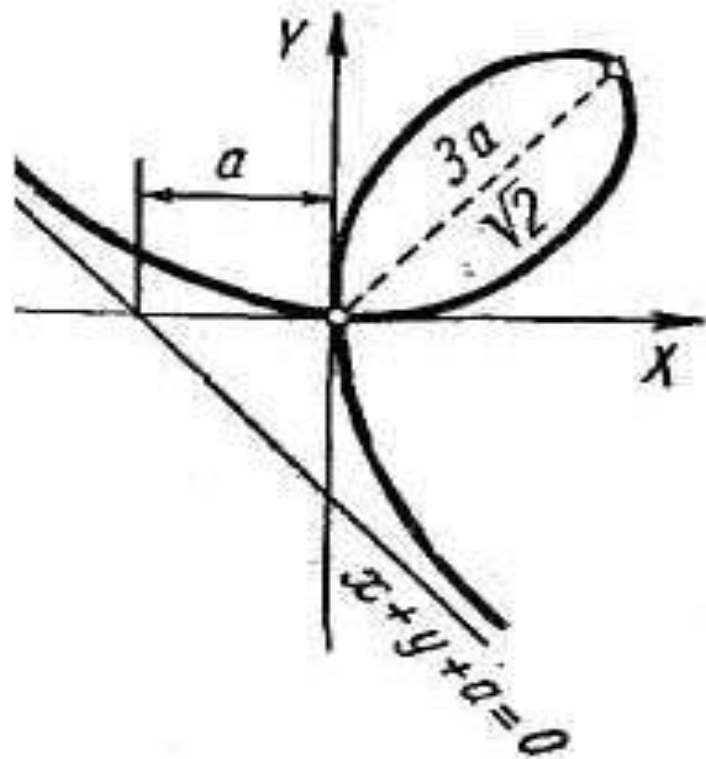
*или*

$$\begin{cases} x = t^2 \\ y = t^3 \end{cases}$$



Кривая Гаусса

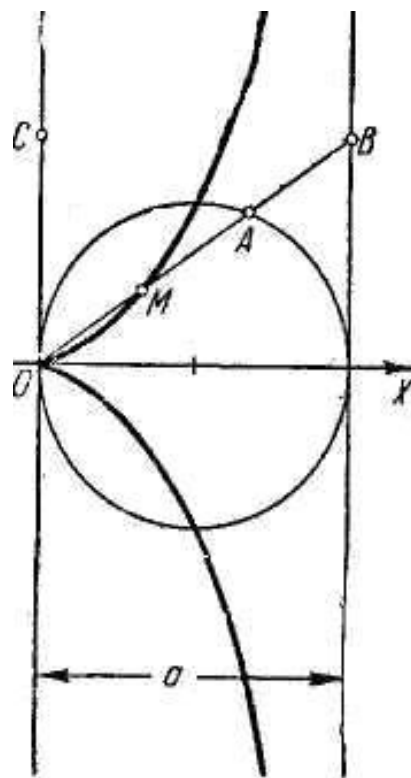
$$y = e^{-x^2}$$



Декартов лист

$$x^3 + y^3 - 3axy = 0 \quad \text{или}$$

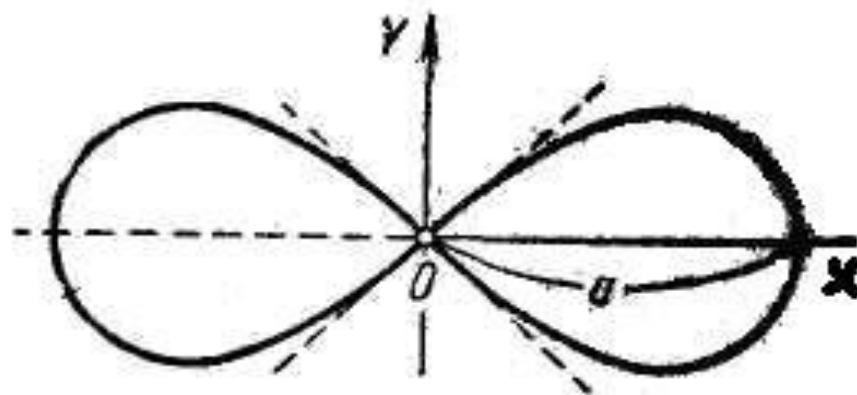
$$\begin{cases} x = \frac{3at}{1+t^3} \\ y = \frac{3at^2}{1+t^3} \end{cases}$$



Циссоида Диоклеса

$$y^2 = \frac{x^3}{a - x} \quad \text{или}$$

$$\begin{cases} x = \frac{at^2}{1+t^2} \\ y = \frac{at^3}{1+t^2} \end{cases}$$

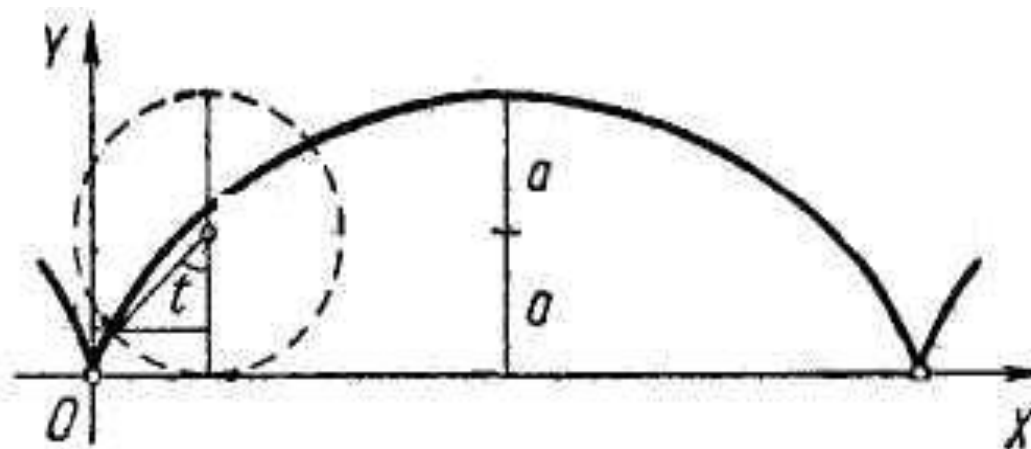


Лемниската Бернулли

$$(x^2 + y^2)^2 = a^2(x^2 - y^2)$$

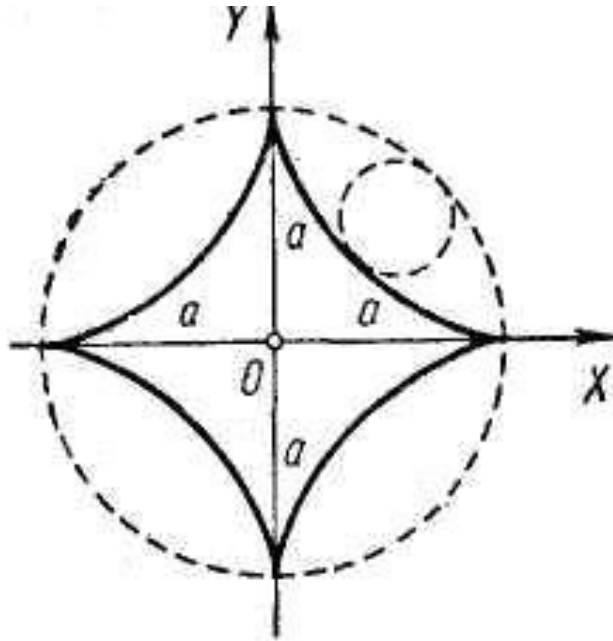
*или*

$$r^2 = a^2 \cos 2\varphi$$



Циклоида

$$\begin{cases} x = a(t - \sin t) \\ y = a(1 - \cos t) \end{cases}$$



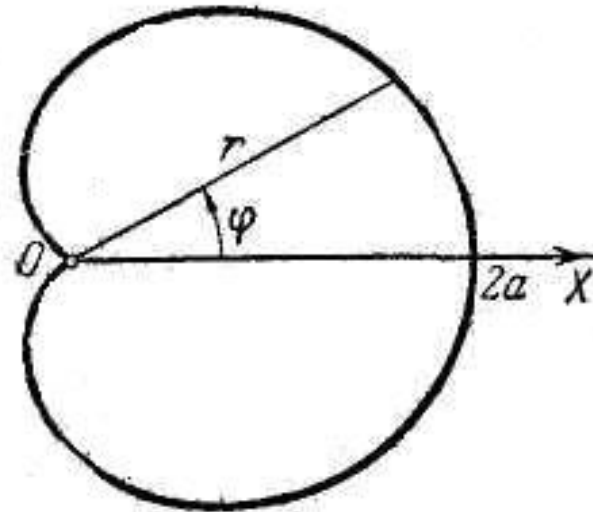
Гипоциклоида (астроида)

$$\begin{cases} x = a \cos^3 t \\ y = a \sin^3 t \end{cases}$$

или

$$x^{\frac{2}{3}} + y^{\frac{2}{3}} = a^{\frac{2}{3}}$$





*Καρδιουίδα*

$$r = a(1 + \cos \varphi)$$