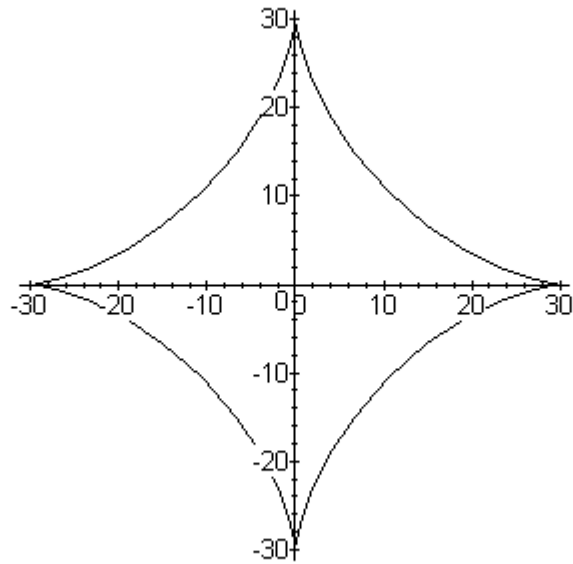


## Astroida

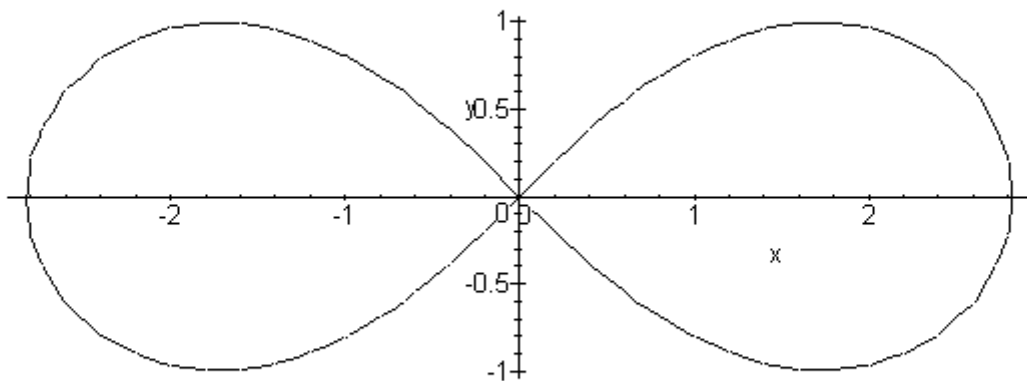
$$(x^2 + y^2 - a^2)^3 + 27a^2x^2y^2 = 0 \quad \text{nebo} \quad x^{2/3} + y^{2/3} = a^{2/3}$$

parametricky  $x = a \cdot \sin^3 t, y = a \cdot \cos^3 t$



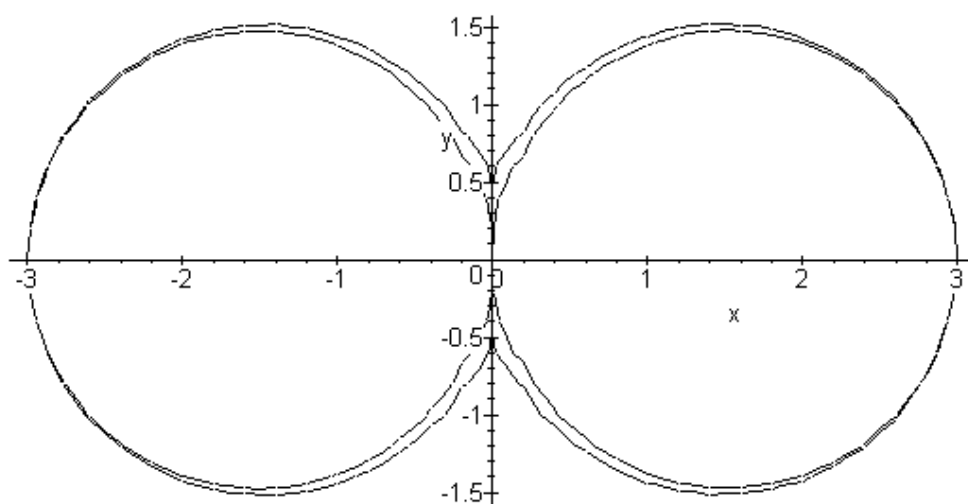
## Bernoullihovala lemniskáta

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



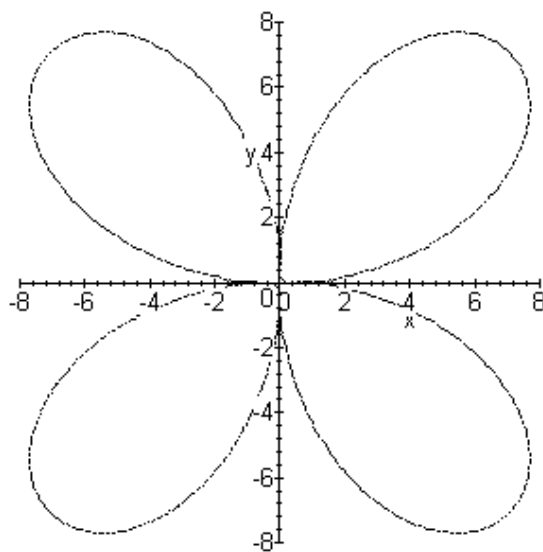
## Boothova lemniskáta

$$(x^2 + y^2)^2 = a^2 x^2 \pm b^2 y^2$$



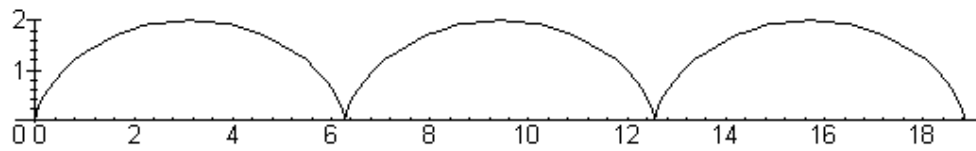
## Čtyřlístá růžice

$$(x^2 + y^2)^3 = 4a^2 x^2 y^2 \quad \text{nebo} \quad \rho = a \cdot \cos \varphi$$



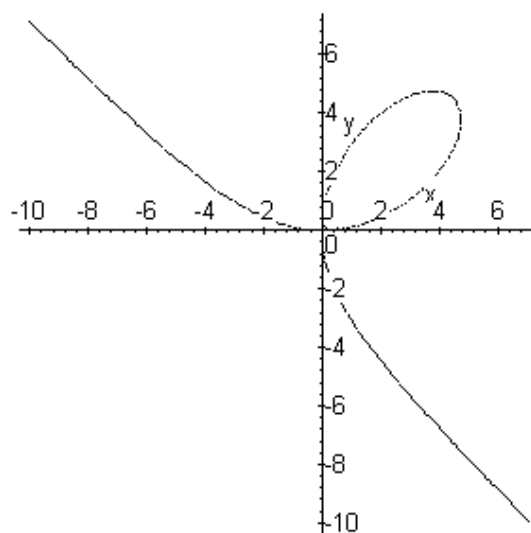
## Cykloida

$$x = a(t - \cos t), y = a(1 - \sin t)$$



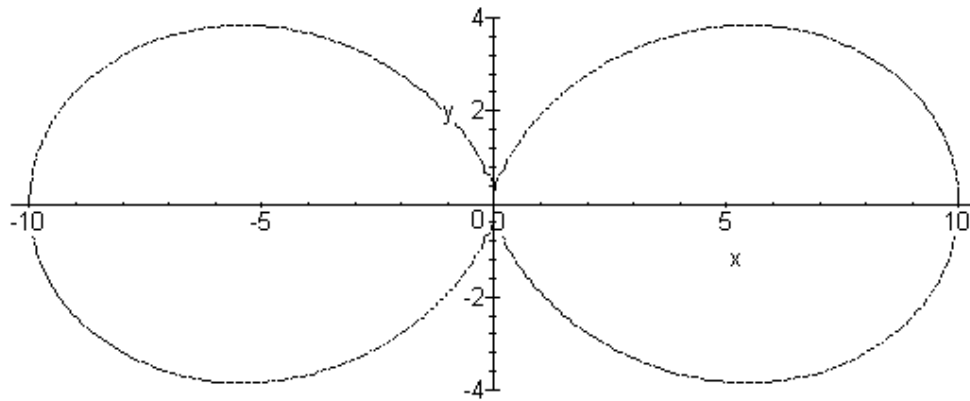
## Descartův list

$$x^3 + y^3 = 3axy$$



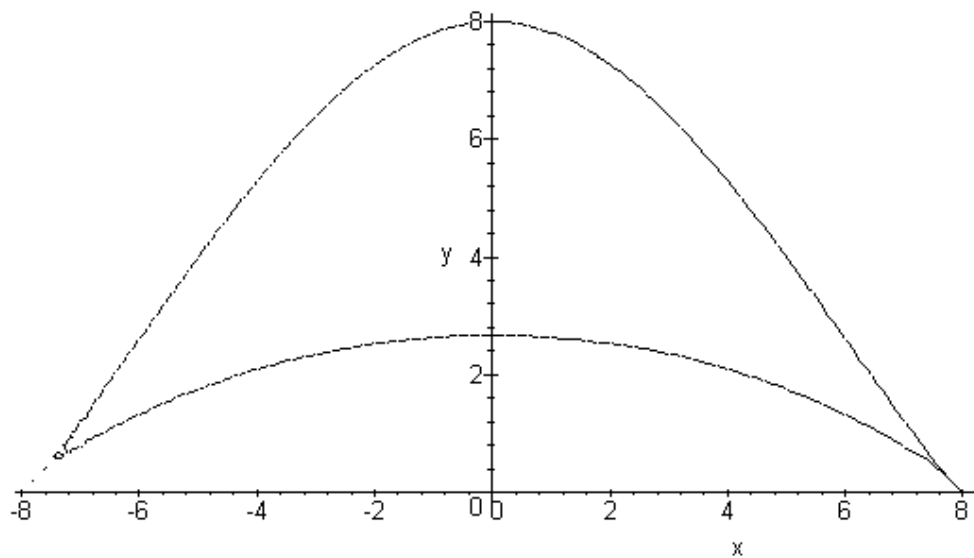
## Dvojitá vejcovka

$$(x^2 + y^2)^3 = a^2 x^4$$



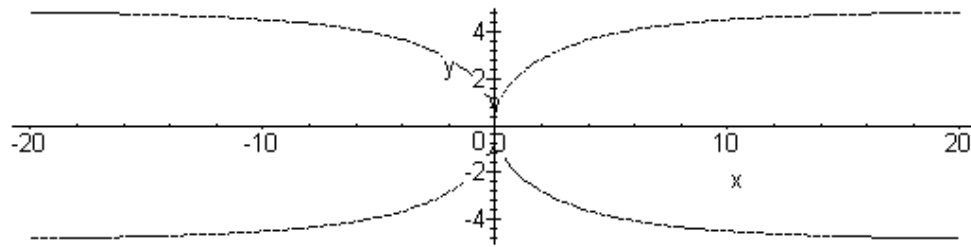
## Dyokardioida

$$(x^2 - b^2)^2 + (y^2 - a^2)^2 = a^4$$



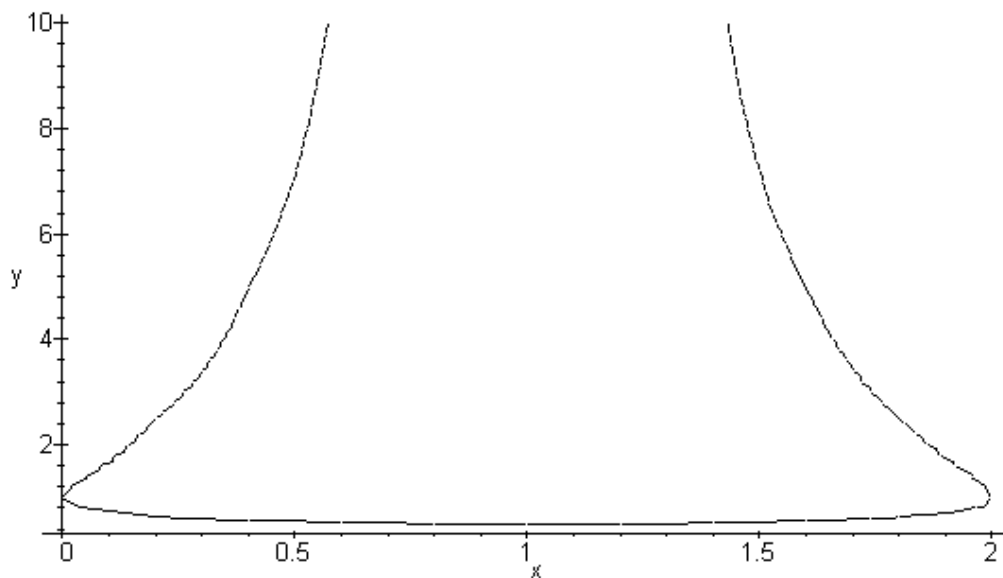
## Gutschovenova křivka

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



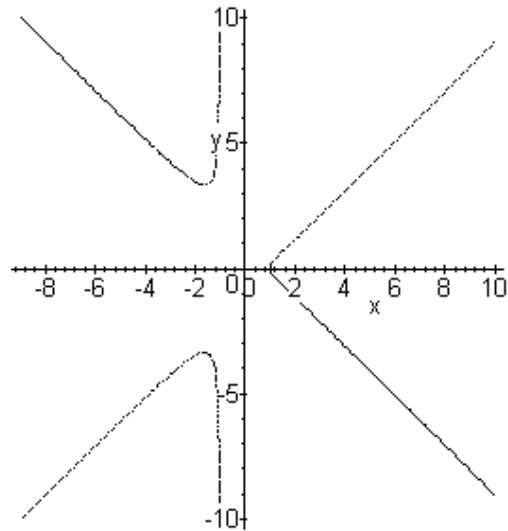
## Hruškovitá křivka

$$y^2(x-a)^2 - 2a^3y + a^4 = 0$$



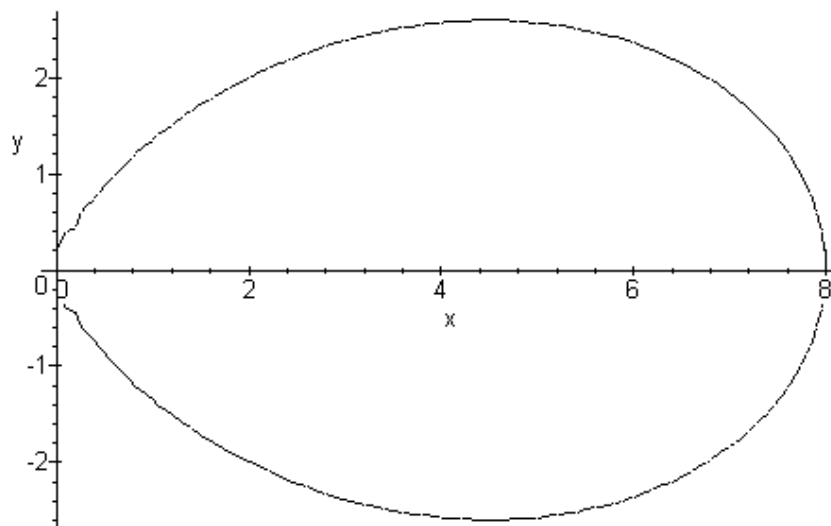
## Hyperbola punctata

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

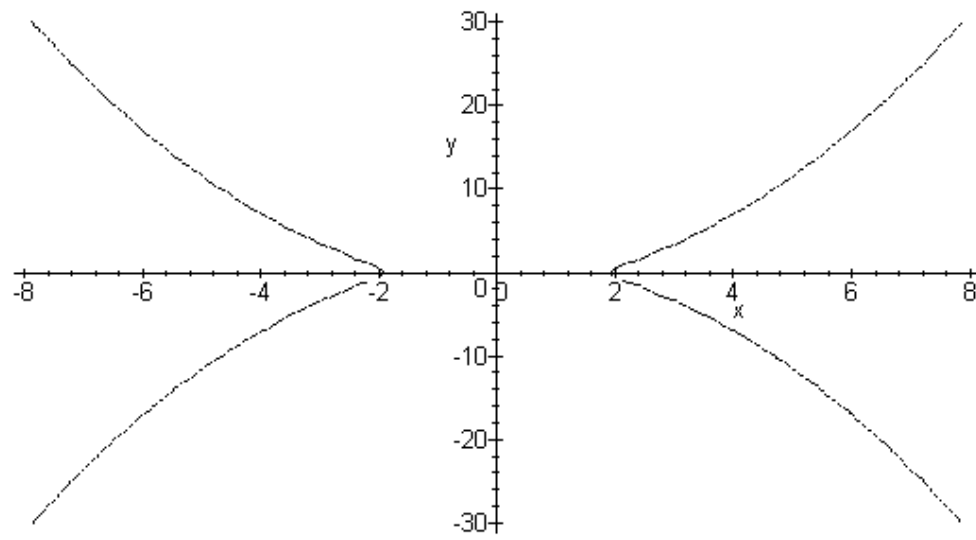


## Jednolistá křivka

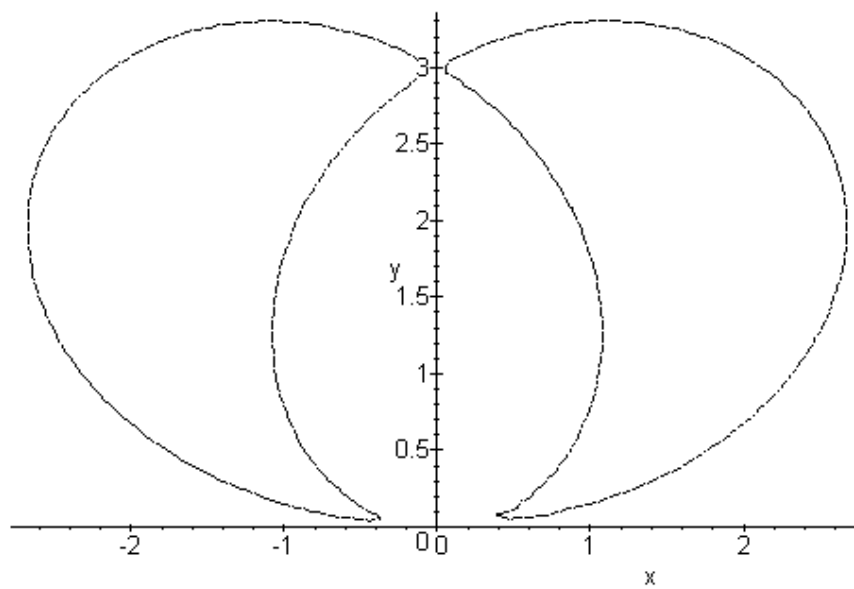
$$(x^2 + y^2)^2 = 4ax^3$$



## Kampyla

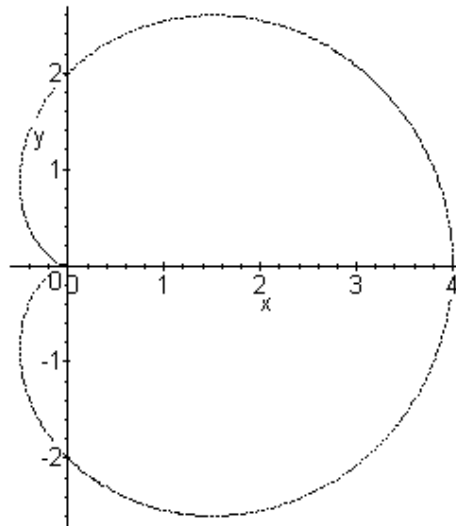


## Kaprikornoida



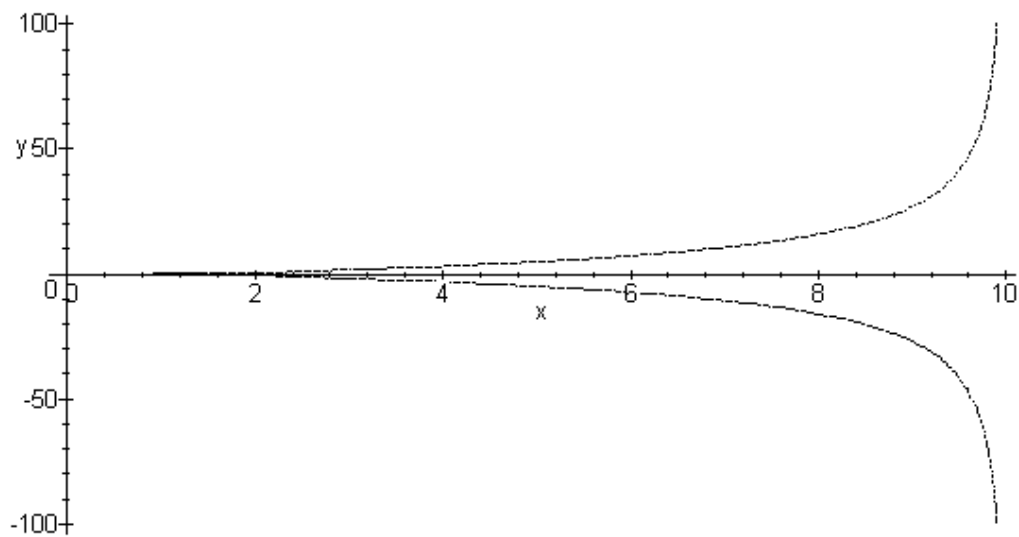
## Kardioida (srdcovka)

$$(x^2 + y^2 - 2ax)^2 = 4a^2(x^2 + y^2)$$



## Kolmá kisoida

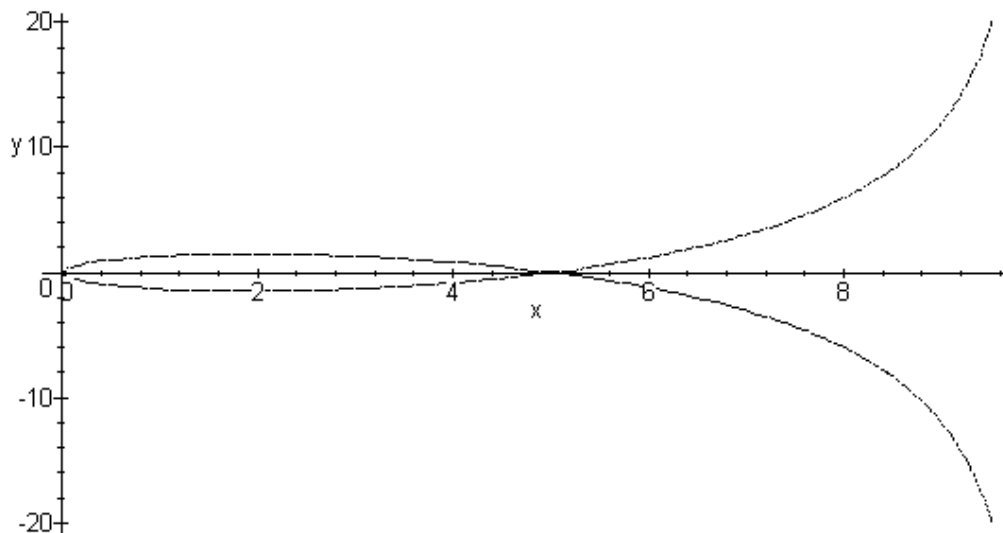
$$x(x^2 + y^2) = 2ay^2$$





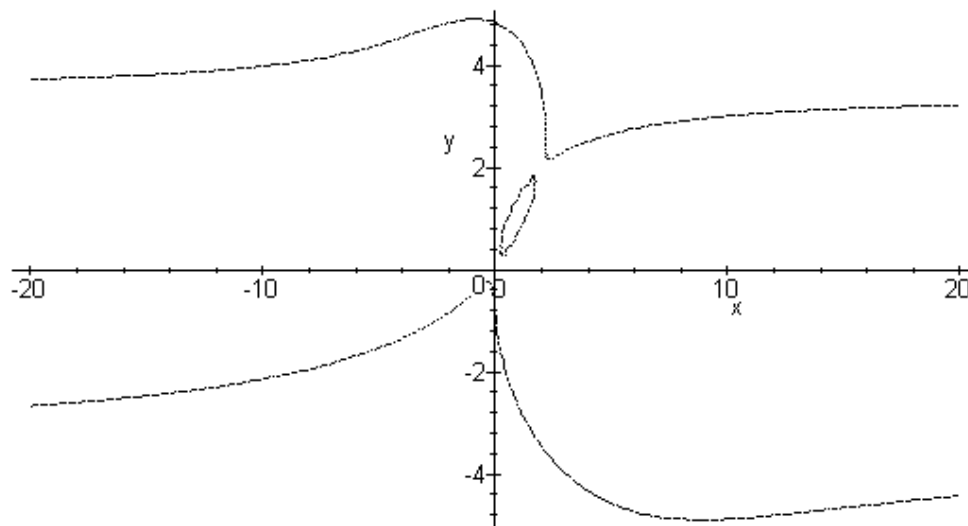
## Kolmá strofoida

$$(x^2 + y^2)(x - 2a) + a^2x = 0$$



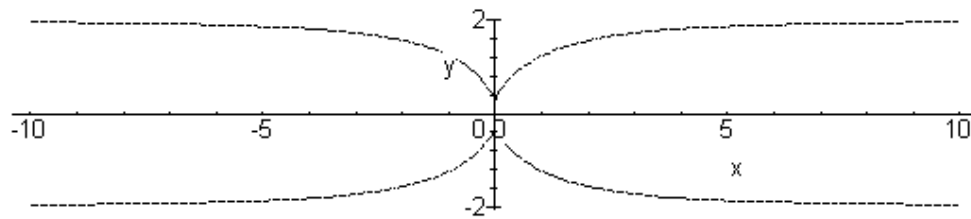
## Konchoidála

$$y^2[(x-a)^2 + (y-b)] = \lambda(bx-ay)^2$$



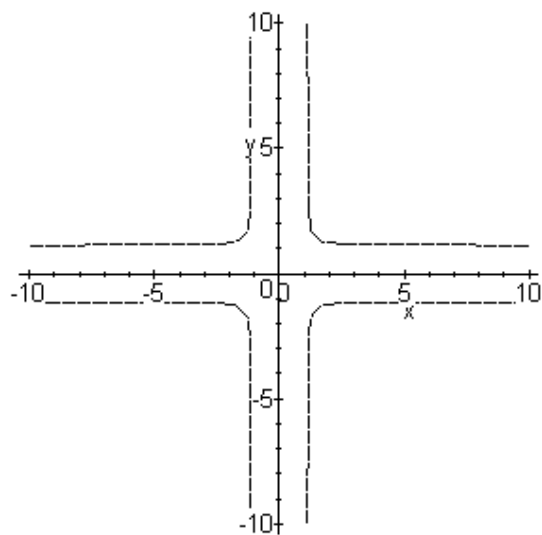
## Křivka kappa

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



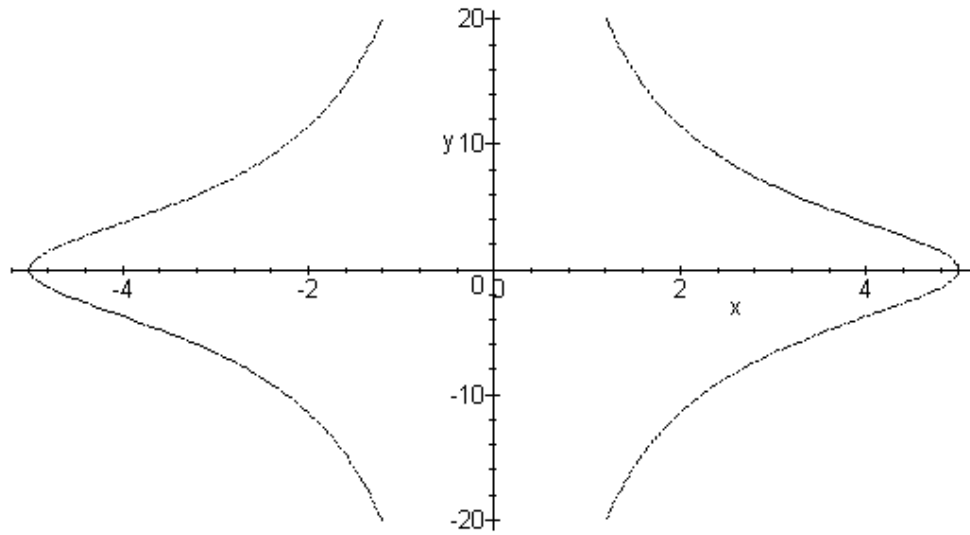
## Křížová křivka

$$a^2/x^2 + b^2/y^2 = 1$$



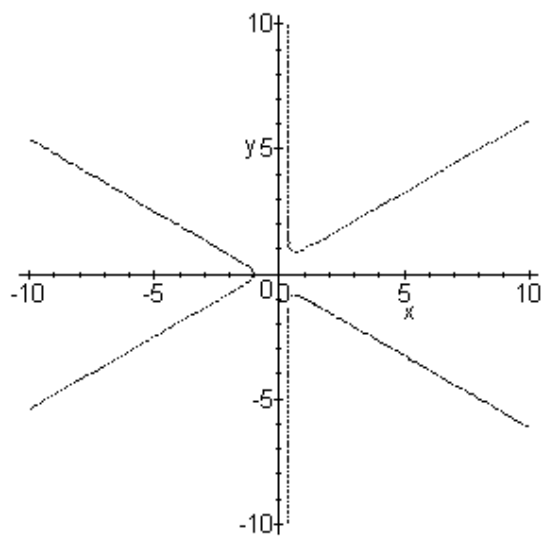
## Külpova konchoida

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



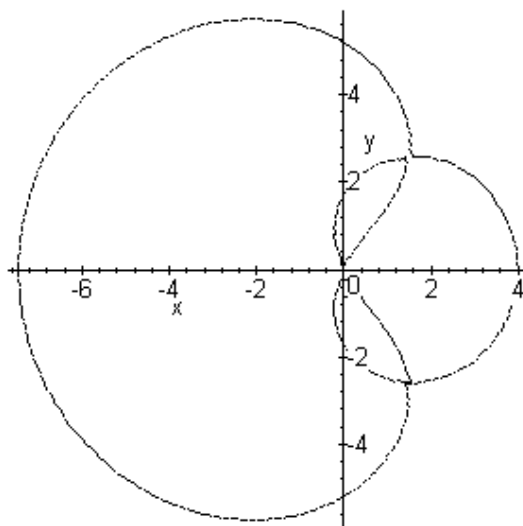
## Longchampsonova trisetrix

$$x(x^2 - 3y^2) + a(x^2 + y^2) = 0$$



## Nefroida (ledvinová křivka)

$$(x^2 + y^2)(x^2 + y^2 - a^2)^2 = 4a^2(x^2 + y^2 - 2ax)^2$$



## Pětistá růžice

$$\rho = r \cdot \sin(n\varphi)$$

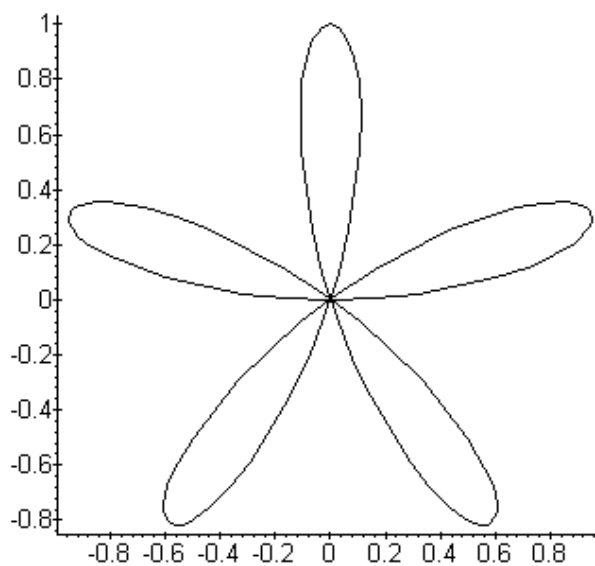
pro  $n=2k+1$

$n$  lístků

pro  $n=2m$

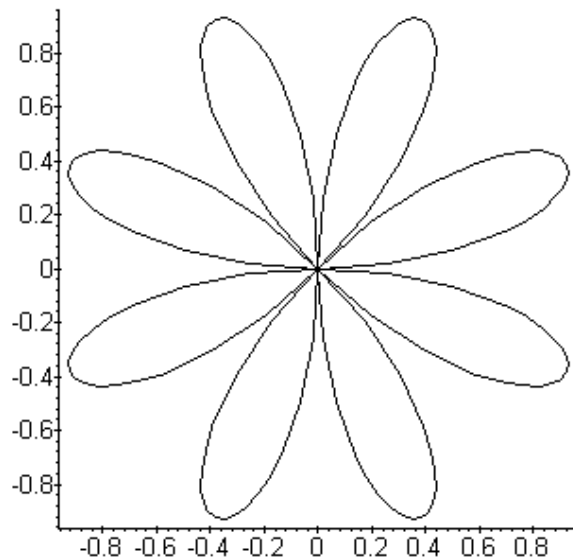
$4m$  lístků

$$\rho = r \cdot \sin(5\varphi)$$



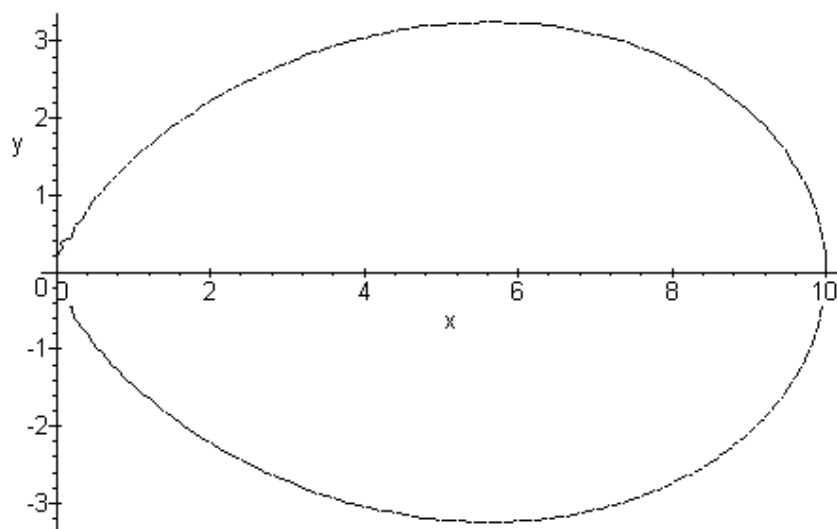
## Osmilistá růžice

$$\rho = r \cdot \sin(2\varphi)$$



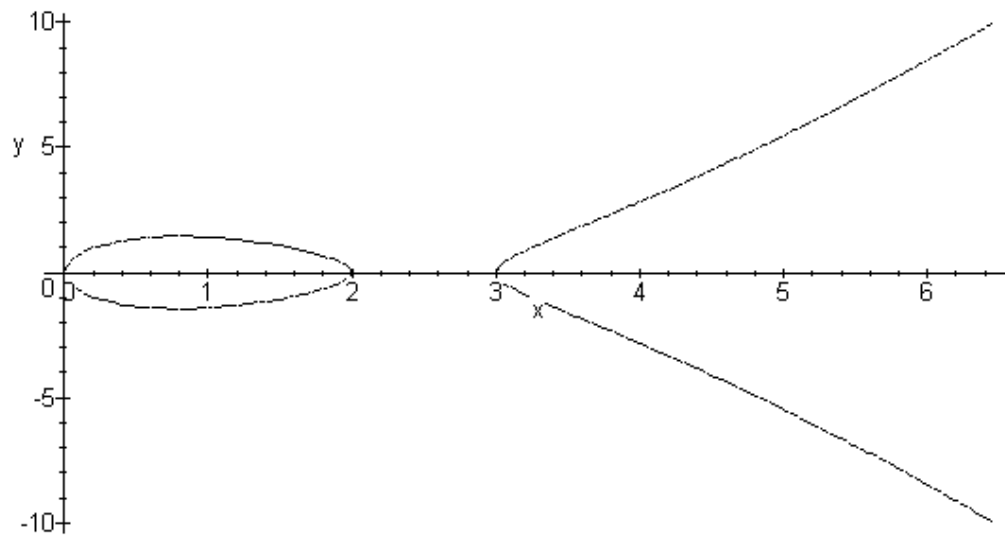
## Ovál (vejcovitá křivka)

$$(x^2 + y^2)^3 - 2ax^3(x^2 + y^2) = (b^2 - a^2)x^4$$



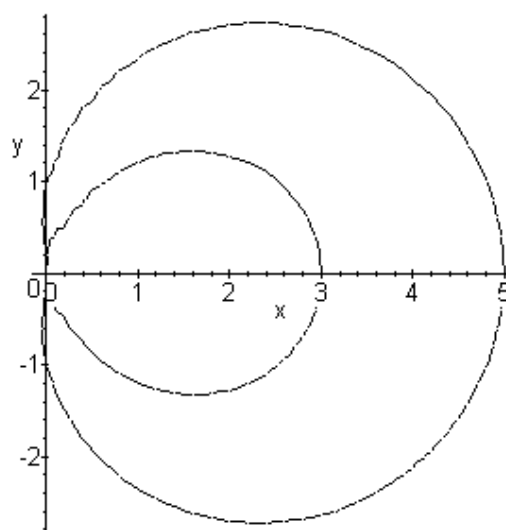
## Parabola s oválem

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



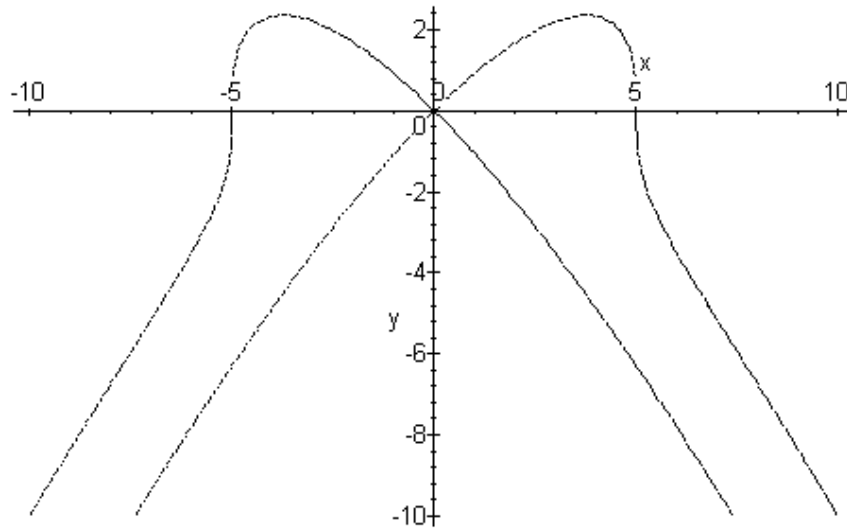
## Pascalova závitnice

$$(x^2 + y^2 - 2ax)^2 = b^2(x^2 + y^2)$$



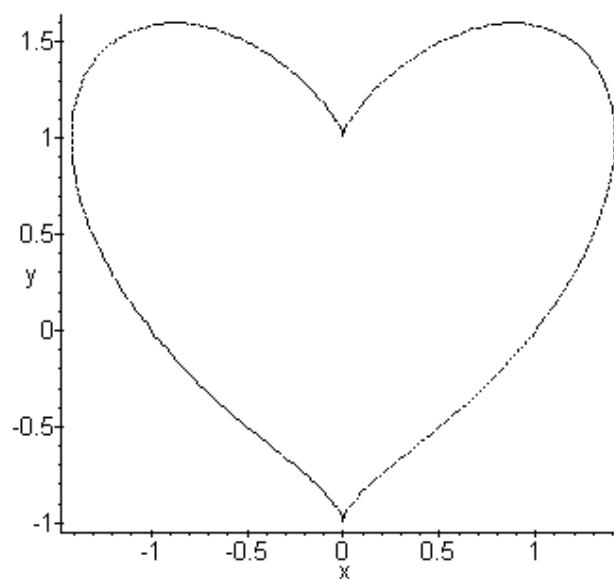
## Perlová křivka

$$ax^n + (x \pm a)x^n = 0$$



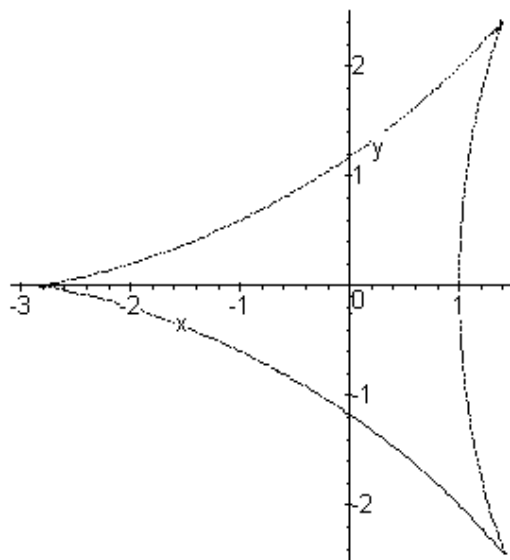
## Srdcovitá křivka

$$(x^2 + y^2 - 1)^3 = 4x^2 y^3$$



## Trojhrotá hypocykloida

$$(x^2 + y^2)^2 + 8ax(x^2 - 3y^2) + 18a^2(x^2 + y^2) = 27a^4$$



## Větrný mlýn

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

