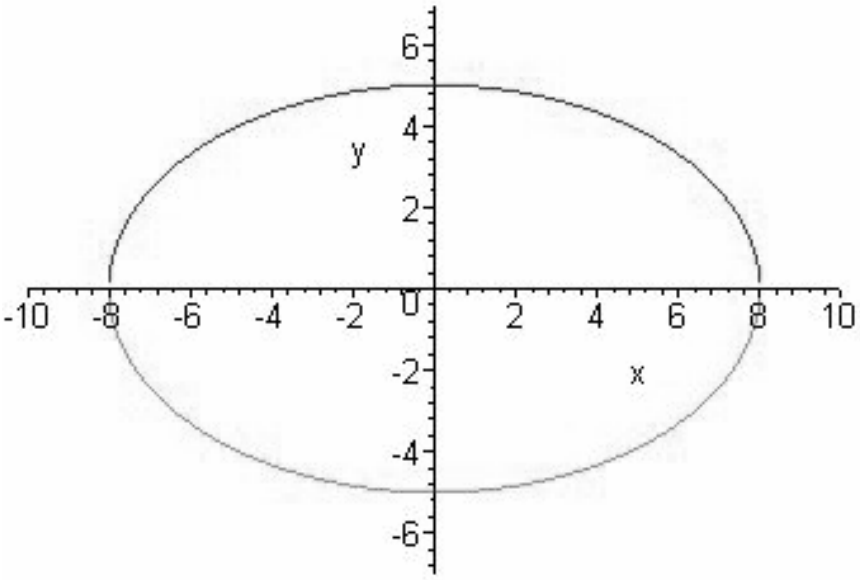
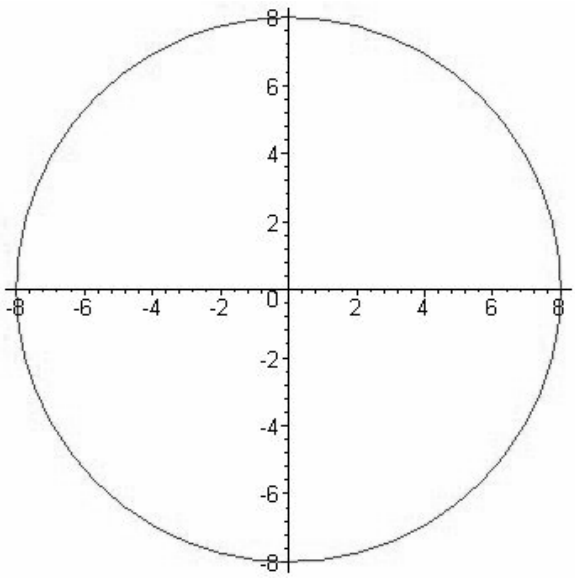
Anhang I zum Skript: Kurven und Flächen - Ergänzungen zur analytischen Geometrie

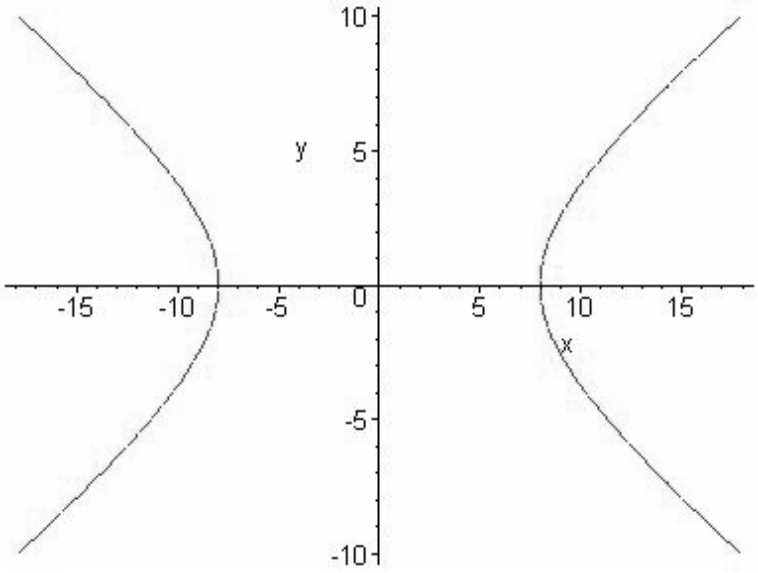
Reelle Kurven 2. Ordnung



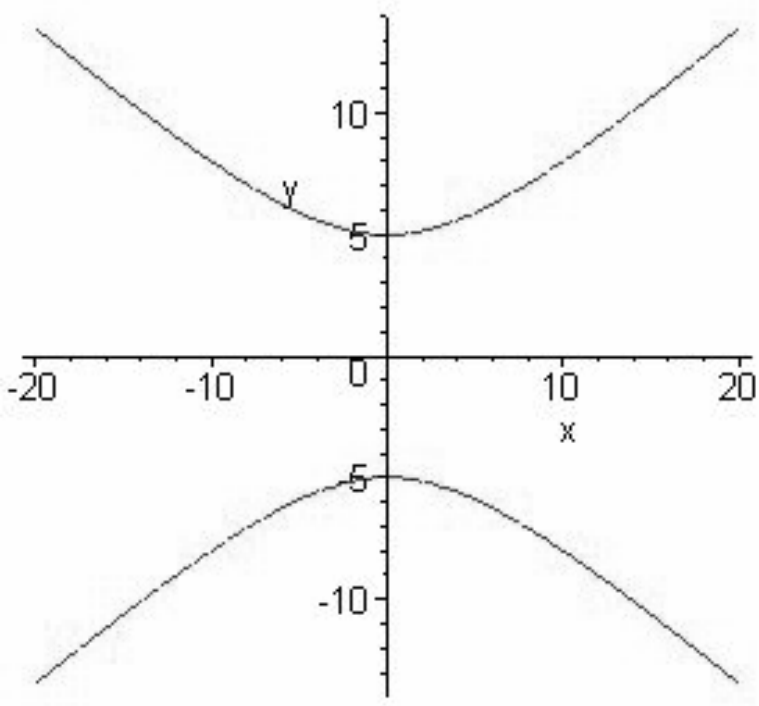
Ellipse: $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$



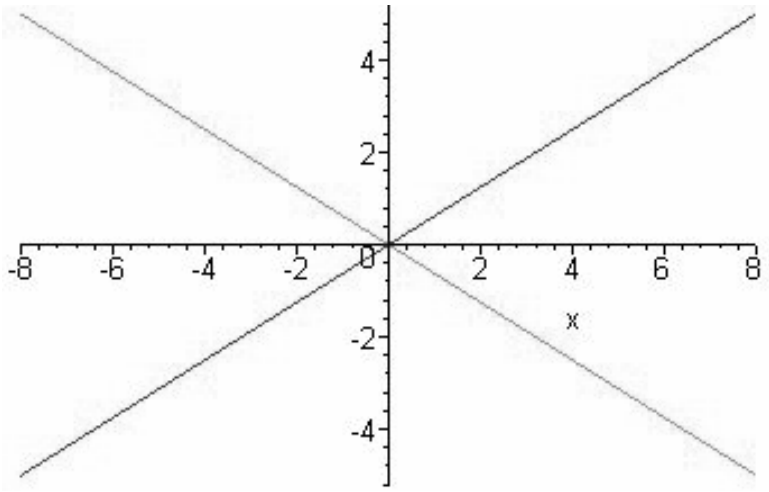
Spezialfall: Kreis: $x^2 + y^2 = a^2$



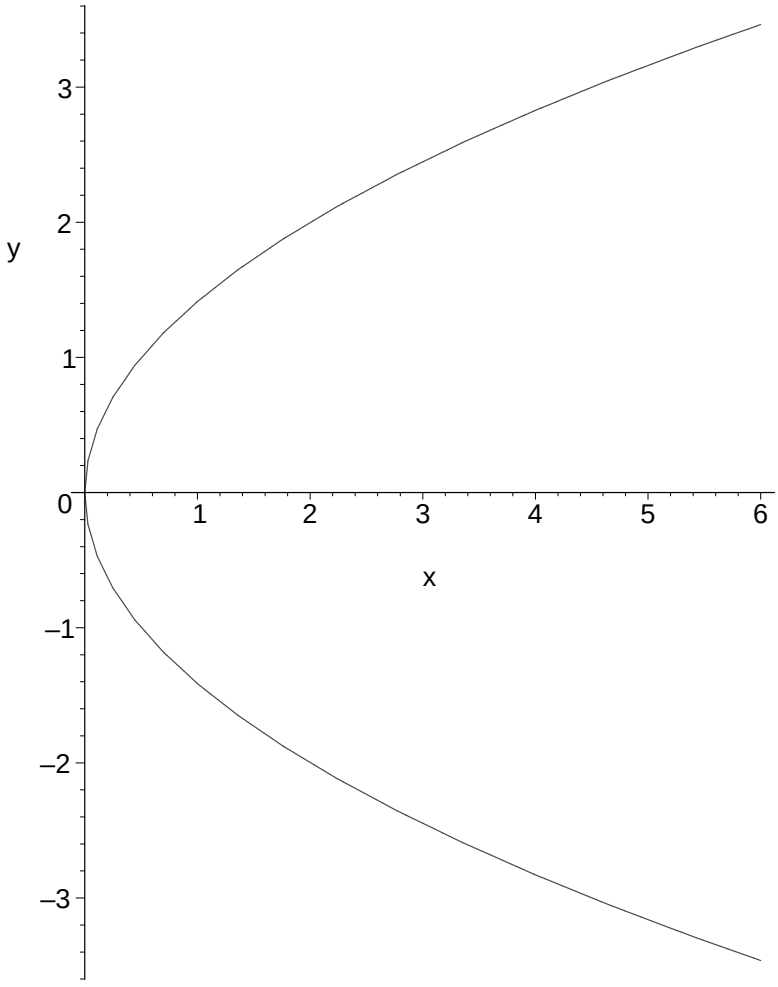
Hyperbel: $\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$



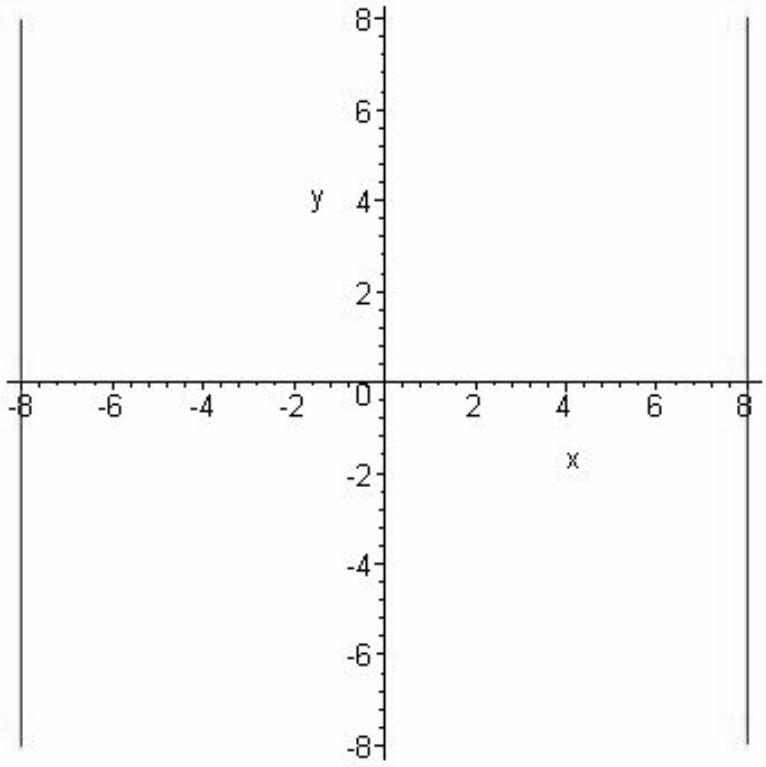
Konjugierte Hyperbel: $\frac{x^2}{a^2} - \frac{y^2}{b^2} = -1$



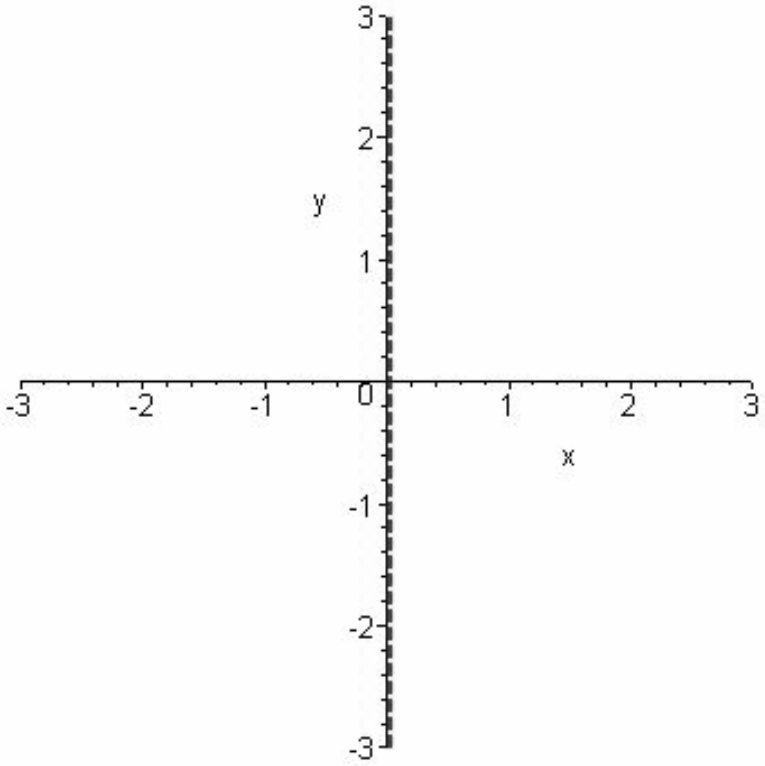
Paar sich schneidender Geraden: $\dfrac{x^2}{a^2} - \dfrac{y^2}{b^2} = 0$



Parabel: $y^2 = 2px$



Paar paralleler Geraden: $\frac{x^2}{a^2} = 1$



Paar zusammenfallender Geraden: $x^2 = 0$