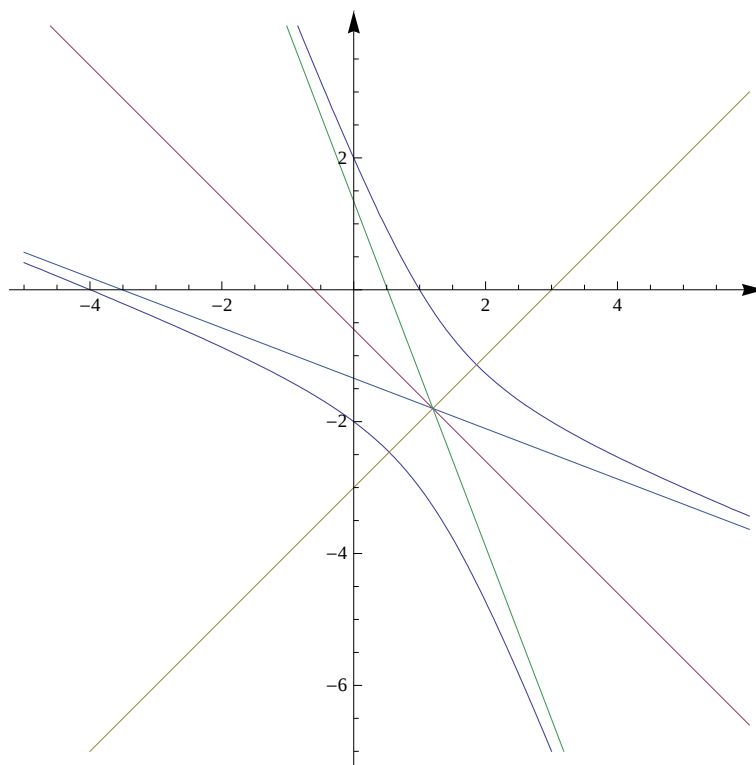


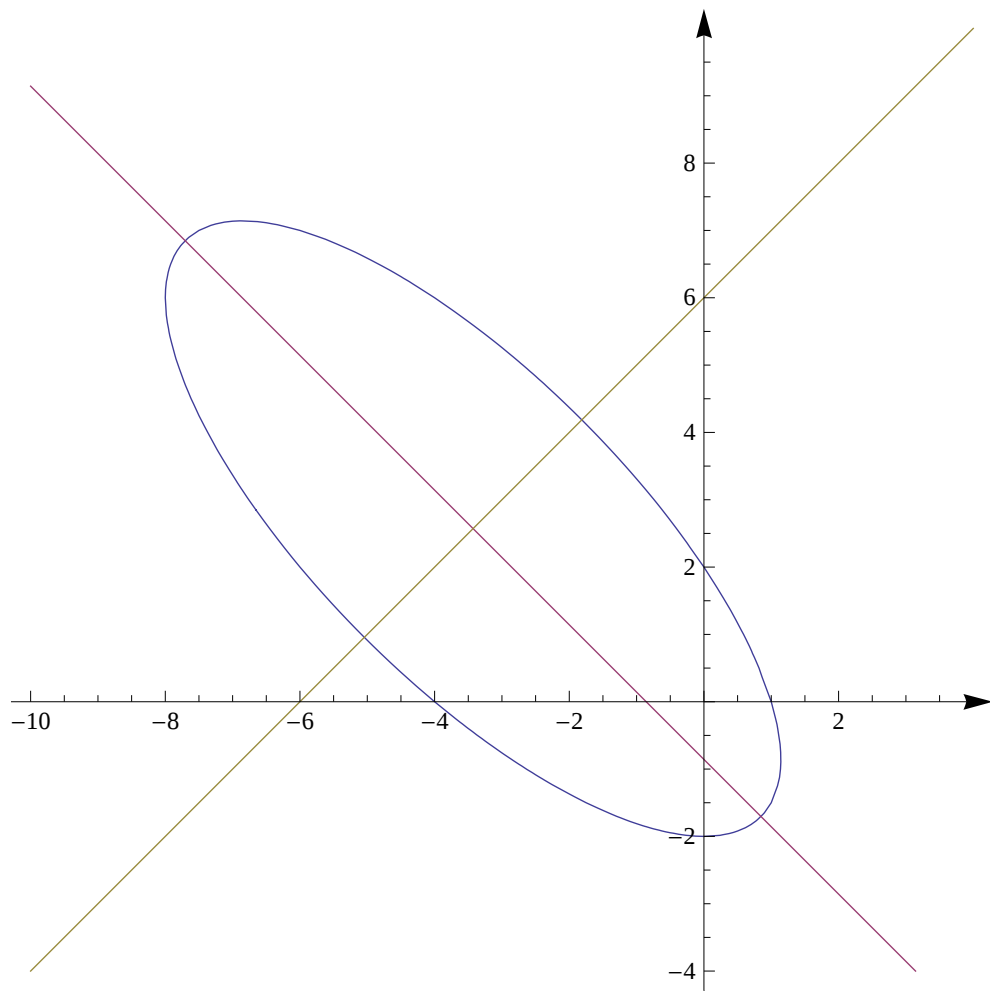
Grafico di una conica

Iperbole



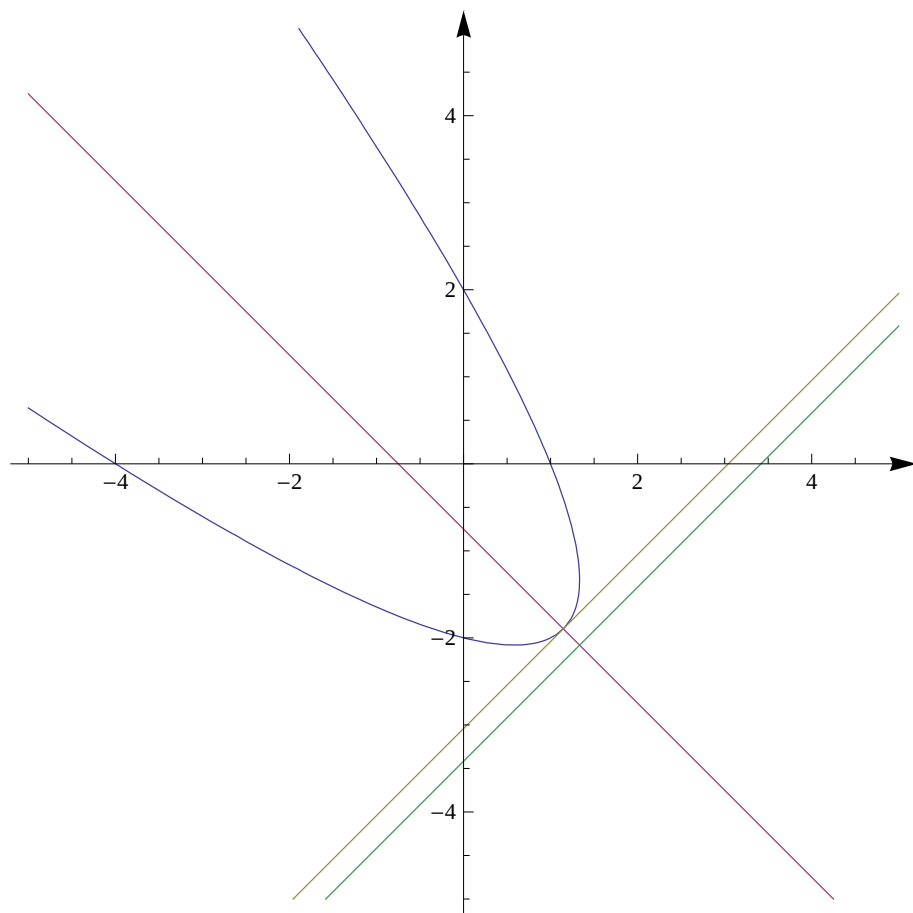
$$x^2 + 3xy + y^2 + 3x - 4 = 0$$

Ellisse



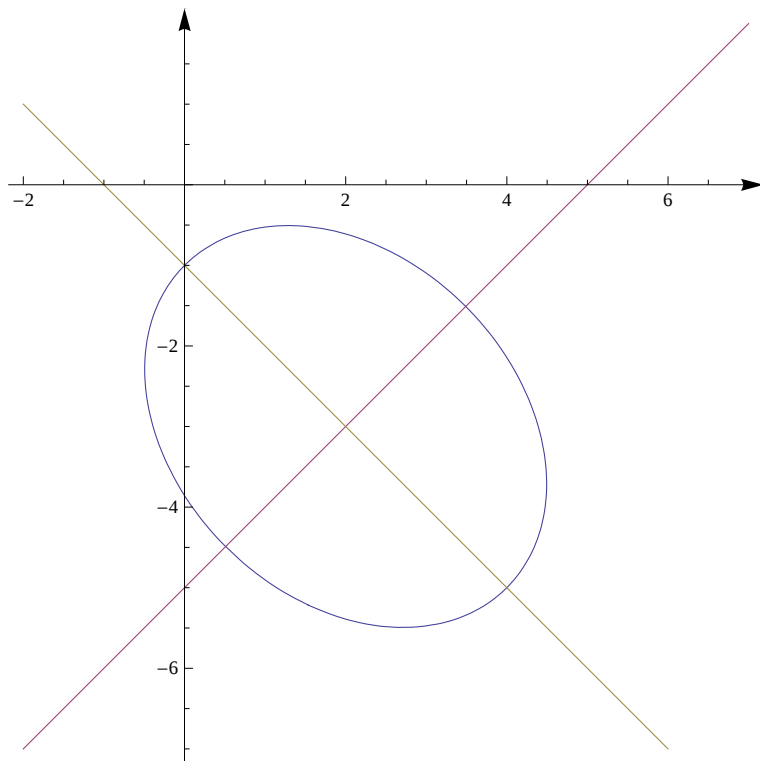
$$2x^2 + 3xy + 2y^2 + 6x - 8 = 0$$

Parabola



$$x^2 + 2xy + y^2 + 3x - 4 = 0$$

Ellisse



$$7x^2 + 4xy + 7y^2 - 16x + 34y + 27 = 0$$

Con le sostituzioni

$$x = 2 + \frac{1}{\sqrt{2}}X + \frac{1}{\sqrt{2}}Y \quad , \quad y = -3 - \frac{1}{\sqrt{2}}X + \frac{1}{\sqrt{2}}Y$$

si ottiene

$$5X^2 + 9Y^2 = 40$$

ossia

$$\frac{X^2}{8} + \frac{Y^2}{\frac{40}{9}} = 1$$

che è la forma canonica dell'ellisse.