FIGURE 1. A node with equation $y^2 = x^3 + x$. The file for this image is `Node.pdf`.

FIGURE 2. A cusp with equation $y^2 = x^3$. The file for this image is `Cusp.pdf`.

FIGURE 3. An ellipse intersecting a curve in 6 points. The ellipse has equation $x^2 + 4y^2 = 16$ and the curve has equation $y^2 = x^3 - 3x + 5$. The file for this image is `Intersecting.pdf`.

FIGURE 4. An ellipse with projective coordinate equation $(x - y)^2 + z(3z - 4x - 4y) = 0$. The file for this image is `Plane.pdf`.

FIGURE 5. Projecting from $\mathbb{P}^2$ to $\mathbb{P}^1$. The ellipse in is picture is the same as the one in the previous picture. The file for this image is `Projecting.pdf`.