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> # Beispiel zu "Algorithmische Geometrie", Abschnitt 8.6, Satz von Bezout
  # (c) 2007 Michael Joswig & Thorsten Theobald

  with(algcurves) : with(plots) :

  f := (x^2 + y^2)^2 + 3*x^2*y - y^3;
  g := y - (x^2 - 1);
  r := resultant(f, g, y);

  fsolve(r, x, complex);

  c1 := plot_real_curve(f, x, y, view = [-2..2, -10..10], colorOfCurve = red,
  thickness = 3);
  c2 := plot_real_curve(g, x, y, view = [-2..2, -10..10], colorOfCurve = blue,
  thickness = 3);
  c3 := plot_real_curve(y - r, x, y, view = [-1.2..1.2, -1.5..4], colorOfCurve = black,
  thickness = 3);

  plotsetup(inline, plotoptions = `width=3in,height=3in`) :

  display([c1], scaling = constrained, view = [-0.95..0.95, -1..1]);
  display([c1, c2], scaling = constrained, view = [-0.95..0.95, -1..1]);
  display([c3], view = [-1.2..1.2, -0.5..2.3]);
```

$$f := (x^2 + y^2)^2 + 3\,x^2\,y - y^3$$

$$g := y - x^2 + 1$$

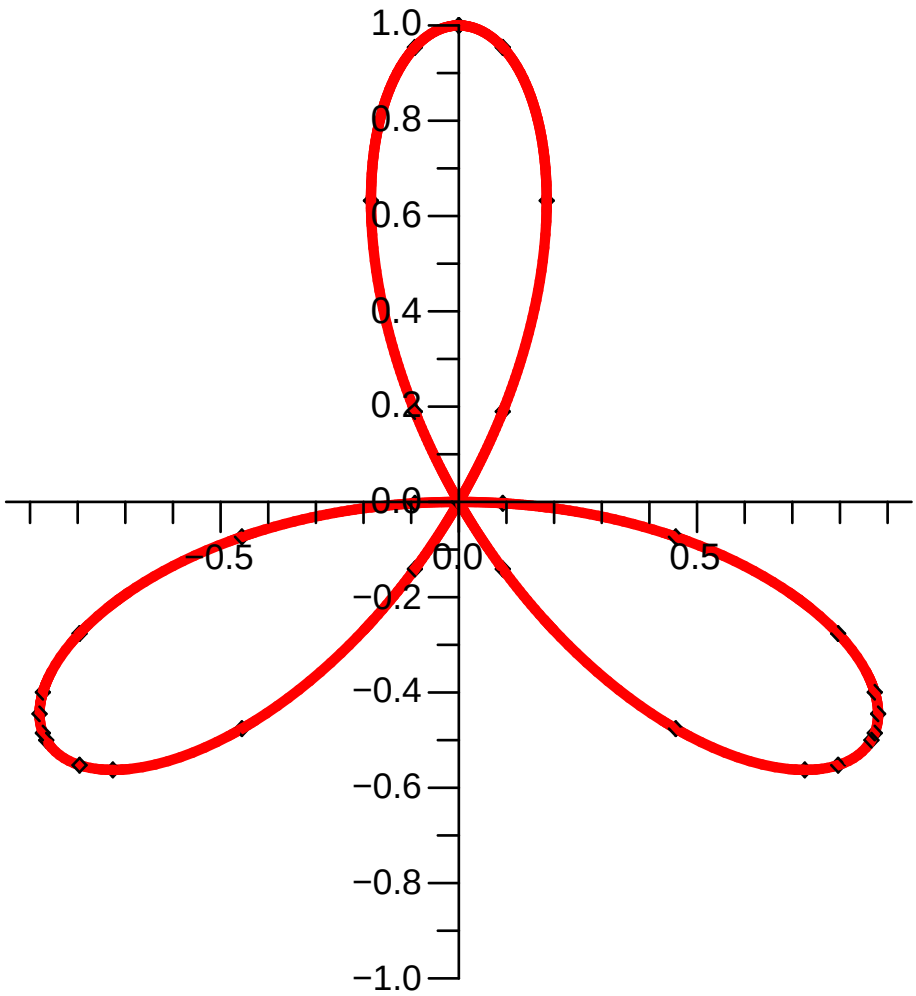
$$r := 9\,x^4 - 8\,x^2 + 2 - 3\,x^6 + x^8$$

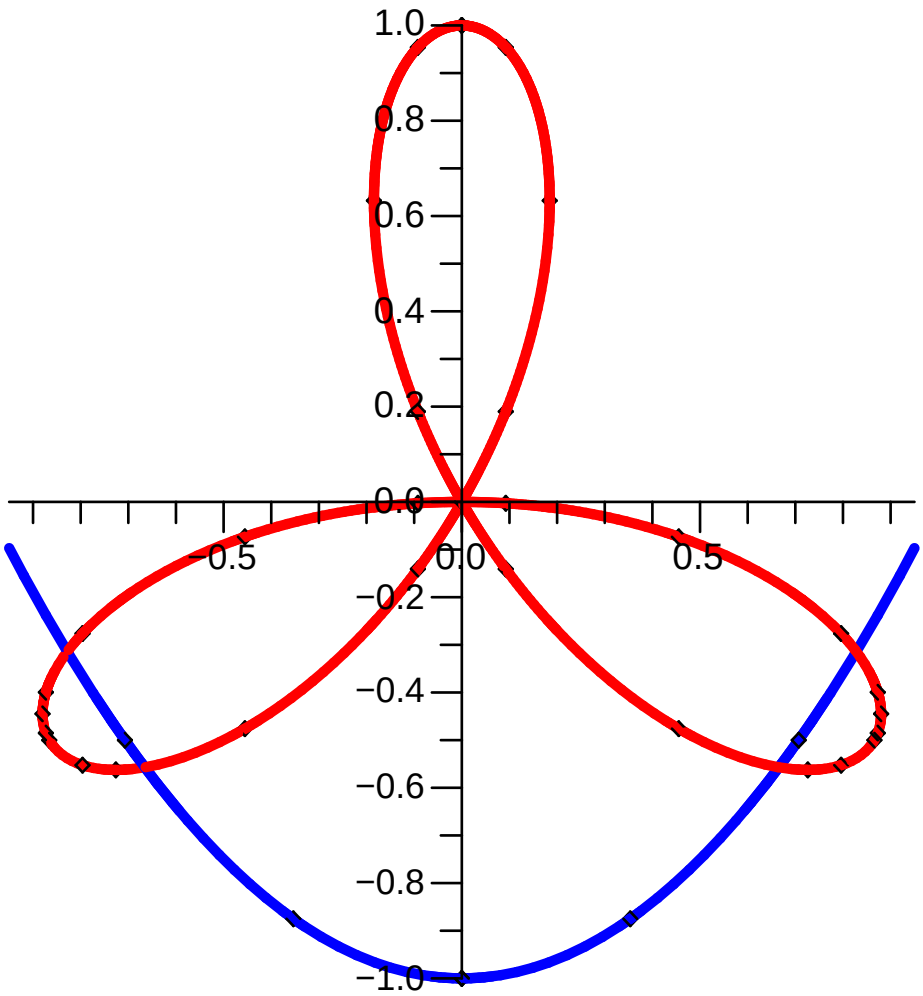
$$-1.323175947 - 0.9028583682\,I,\ -1.323175947 + 0.9028583682\,I,$$
$$-.8281056683,\ -.6655511224,\ 0.6655511224,\ 0.8281056683,$$
$$1.323175947 - 0.9028583682\,I,\ 1.323175947 + 0.9028583682\,I$$

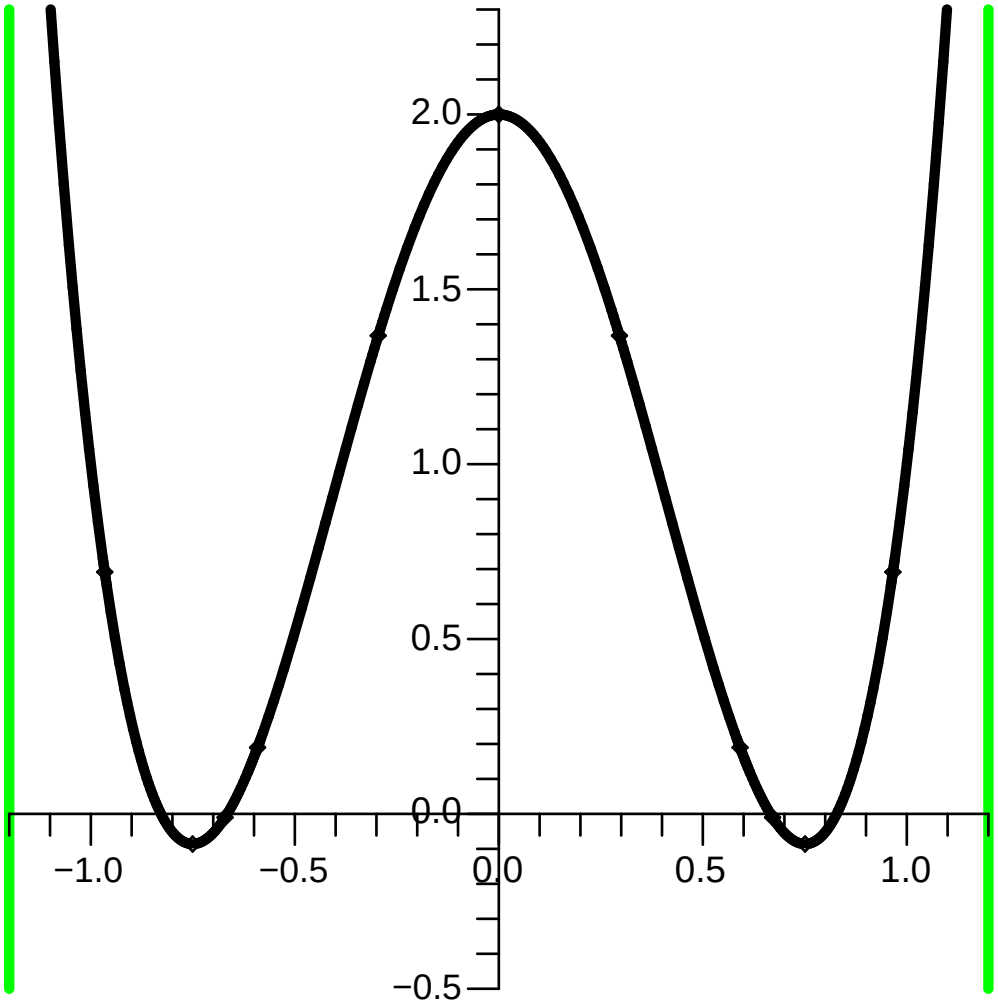
$$c1 := PLOT(\ldots)$$

$$c2 := PLOT(\ldots)$$

$$c3 := PLOT(\ldots)$$


1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
−0.8
−1.0
−0.5
0.0
0.5


1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
−0.8
−1.0
−0.5
0.0
0.5


2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
−0.5
0.0
0.5
1.0

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