

**Practice problems.**

- (1) Find the roots of  $x^3 + 3x - 2 = 0$ .
  
  
  
  
  
  
  
  
  
  
- (2) Find the roots of  $2y^9 - 3y^6 - 1 = 0$ . (Hint: make use of your answer to the previous problem.)
  
  
  
  
  
  
  
  
  
  
- (3) Find the roots of  $z^4 + 4z + 6 = 0$ .
  
  
  
  
  
  
  
  
  
  
- (4) Find the intersection points of the parabola defined by  $y = x^2 - 3$  and the hyperbola defined by  $xy = 1$ .
  
  
  
  
  
  
  
  
  
  
- (5) Find the intersection points of the parabola defined by  $y = x^2 - 2x$  and the ellipse defined by  $x^2 + 16y^2 = 4$ .