

## On the Newton-Puiseux Series

Choose only one of the following two exercises.

**Exercise 1.** (a) Draw the Newton polygon for the following polynomial

$$F(x, y) = y^4 - 2x^3y^2 - 4x^5y + x^6 - x^7.$$

(b) Compute a Newton-Puiseux series  $y(x) = \sum a_i x^{i/n}$  of the polynomial  $F(x, y)$  from (a) above.

**Exercise 2** (if you don't like algebra). Write a short essay (around one page—in English!) about Isaac Newton.