

Introduction to Sage Development

Exercise 1 *Download and install Sage (www.sagemath.org) on your computer.*

Exercise 2 *Once it is installed (or you are using a computer with Sage already installed), figure out how to start Sage and how to start the notebook. Create a new worksheet.*

Project Euler (www.projecteuler.net) is a series of challenging mathematical/computer programming problems that will require more than just mathematical insights to solve. Although mathematics will help you arrive at elegant and efficient methods, the use of a computer and programming skills will be required to solve most problems.

Exercise 3 *Go to the Project Euler webpage and create an account.*

Exercise 4 *Do Project Euler problem 1 using list comprehensions.*

- (a) *Test that your answer is correct by submitting it at the Project Euler webpage.*
- (b) *If your answer is correct, you will have gained access to the forum for this problem. Visit the forum and try to find a better solution.*
- (c) *If your answer is correct, you will also have access to a PDF file with an overview of the problem. Read it.*

Exercise 5 *Do Project Euler problem 2, and repeat (a), (b) and (c) above.*

Exercise 6 *Do Project Euler problem 3, and repeat (a), (b) and (c) above.*