# Technical Assessment

In order to help us assess your programming skills and literacy, we ask you to submit some sample code for us to evaluate. You have 72 hours to complete this assignment.

Project Euler (http://projecteuler.net/problems) is a collection of math-oriented problems, most of which can be solved by writing a small piece of code. Your task is to choose three of the problems and submit code that gives the correct answer to the problem.

The choice of the problems is entirely up to you. In general, lower numbered problems are easier; some problems also build on the solution to earlier problems. You can choose how much of a challenge you would like to accept. But, please be sure to select problems that are challenging enough to demonstrate what you are really capable of. We recommend that you not choose problem 1, and that you choose at least one problem greater than or equal to 50. Problems 54, 81 and 89 may be of interest.

You can choose the language you use to write your solution. However, we prefer you use one of the languages we use in production today, namely Java and JavaScript. But we will also accept solutions using any of C, C++, C#, Python, Ruby, Scala, if you are more comfortable in one of these.

The code should be runnable directly and output the answer to the question as well as indicate the execution time of the computation.

Write your code to the same standard you would use for production code. Performance is important, but not all-consuming. The general rule on Project Euler is that solutions should take less than one minute of clock time to execute. Optimizing your solution from 100ms to 50ms is generally NOT a good trade-off if it causes the code to become more opaque.

Commenting style and test methods are very much part of the exercise. Clarity of code – thus facilitating review and maintenance – is also very important.

Although the Project Euler site itself is designed so that you can't see the solutions of others until you have submitted a correct answer yourself, there are a variety of blogs and other sites on the Internet that give solutions. Good programming practice builds on the work of others, so looking at other references to understand algorithms is perfectly acceptable.

However, copying a solution verbatim from someone else is not in the spirit of the exercise. Also, many of the published solutions are optimized for goals other than clean, production-oriented code. If you choose to use any published code as part of your solution, make sure that any appropriate copyrights and other legal notices are included.

You should include with your solution:

- Instructions for running the code
- A sample of the output
- Why you chose the problems you did
- A description of the process you followed in solving the problem
- What reference sources you used, if any
- How much time you spent on the exercise

Please provide a link so we can download and review your solution, ideally via Github, bitbucket or similar.