

Coding Test

Please complete all of the following problems using Objective-C.

Problem 1

Write an application that can convert a product ID number to a standard ISBN-10 number.

If we take the Da Vinci Code as an example, the product ID is 978140007917 and the ISBN is 1400079179. The first 3 digits of the product ID (978) are a prefix that can be removed. The remaining digits of the product ID (140007917) are the digits of the ISBN excluding the error control digit. Refer to **Appendix 1** for a description of how an ISBN number is constructed.

Your task is to develop an app that can accept a Product ID number and generate the ISBN-10 number.

Sample Test cases:

Product ID	ISBN
978155192370	155192370x
978140007917	1400079179
978037541457	375414576
978037428158	374281580

Problem 2

Given an array of arbitrary length that is fully populated with randomly distributed int values: 1, 2, and 3, write the most efficient algorithm you can think of that sorts the array into

ascending int order. Do not use sorting methods in the API. You do not need to write a GUI for this problem.

Problem 3

For the attached Xcode project (CodingTest.xcodeproj – a simple app for viewing information about a school's attendees):

1. Improve the code and UI as you see fit.
2. Add a feature to search the list of attendees by subject name.

Note: For this exercise you can assume the format of the input file will never change.