# Calculating a cubic Bezier exercise

Introduction

This exercise is to help us evaluate your coding ability. The aim is to get a feel for how you tackle a new problem and also to see some new code you have written. We are looking for your approach to how the exercise is solved. Please provide additional notes, if necessary, to help explain your rationale for your solution.

Remember this is your chance to demonstrate to us the quality of the code you write. This should demonstrate your best practise to solving the problem.

Problem

Write a program that calculates the points on a cubic Bezier curve, given four control points and the number of intervals.

Below is an example of a cubic Bezier curve with a start point P0 two control points P1, P2 and an end point P3.
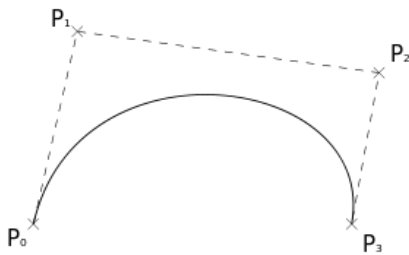
To solve the problem the solution should be written using C#.

Input and output can be via any method e.g. command line parameters, configuration file, user interface or spread sheet.

The program must meet the following requirements:
Take as input 4 control points and the number of intervals.
Generate as output cubic Bezier points for values of t between 0 and 1 using the input parameters.

Please provide all the necessary details to build the project(s).

Please use any resources that you want to solve the problem. This includes the internet, books etc. However, you will be expected to understand and describe the program you provide.

Feel free to contact richard-munns@softwareimaging.com if you have any questions regarding this exercise.