

CS 779, Winter 2020  
Assignment 7

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1. (20 pts\*) State and prove the blossoming principle for a degree  $n$  polynomial with domain of arbitrary dimension  $d$ .
2. (10 pts) Give a short (1-2 paragraph) description of your proposed project.

**Optional Questions (Extra credit?)**

The following questions are optional. You might want to look at them, and think about them briefly. Do them and submit them if you want — I'll mark them if you do, and it won't hurt your grade. In fact, it might help your grade: if you do these question and miss points on the other questions on this assignment, I will use these to boost your score on this assignment up to 100%.

1. (5 pts) In class, we saw how to perform 4-1 subdivision of a triangular Bézier patch using 5 de Casteljau evaluations. Show how to obtain 4-1 subdivision using only 4 de Casteljau evaluations.