# Cunov, Colton

**Summary:**

You should check the items marked “Not OK” below, if any, but you do ***not*** need to resubmit your solutions. The total score below is your final score for HP1.

**Submission:**

| | | |
|---|---|---|
| - Time | OK | |
| - Single compressed file submitted | OK | |
| - Report in PDF format | Not OK | All equations should be numbered. [-] |

**Problem 1.1:**

| | | |
|---|---|---|
| - $f_p(x;\mu)$ definition (0.5p) | OK | Note: to be precise, the constraint is not fulfilled for “>” instead of “>=”. |
| - Gradient (0.5p) | OK | |
| - Unconstrained minimum (0.5p) | OK | |
| - Code + correct output (1p) | Not OK | “T” does not meet the coding standard. [-] |
| - Report (0.5p) | OK | |
| *Score (max 3p):* | 3 | |

**Problem 1.2 (a):**

| | | |
|---|---|---|
| - Check corners and sides (1p) | Not OK | Point for boundary C is incorrect. [-0.5p] |
| - Correct answer (1p) | OK | |

**Problem 1.2 (b):**

| | | |
|---|---|---|
| - Both candidates are checked (1p) | Not OK | “Out of the four possibilities” is incorrect. There are only two possibilities, because x2 must be 4 times x1, so they share the same sign. [-0.5p] |
| *Score (max 3p):* | 2 | |

**Problem 1.3 (a-b):**

| | | |
|---|---|---|
| - Code performance (1p) | Not OK | FunctionOptimization should have carried out a single run. [-] |
| - Interfaces and coding standard (1p) | OK | |
| - Testing different mutation settings (1p) | OK | |

**Problem 1.3 (c):**

| | | |
|---|---|---|
| - Analytical proof with relevant steps (1p) | Not OK. | The idea behind this task was to recognize that the function to minimize can be decomposed as the product of simpler functions which are easier to derive and then use the product rule. You, however, multiplied the factors and |

| | | |
|---|---|---|
| | | then took the derivative of the terms. Moreover, you should include all the relevant intermediate steps, not just reporting that inserting the point in the derivative would equal to 0. [-0.5p] |
| Other issues: | | |
| *Score (max 4p):* | 3.5p | |
| **Total score (max 10p):** | 8 | Three [-] => -0.5p |