***MAP4C – Optimization Portfolio Evaluation*** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

IN-CLASS WORK PERIODS: Monday October 1st – Wednesday October 3rd  
DUE: TUESDAY OCTOBER 9th (start of class)

***PART A – OPTIMIZATION PORTFOLIO***

Your job is to produce evidence of your understanding of optimization. This evidence (on paper or computer) will be collected into a portfolio. Mr John will provide a variety of questions that you can use to demonstrate the key skills from the table below. You should keep track of the evidence you produce in the table below.

|  |  |  |
| --- | --- | --- |
| A - Optimizing in 2-dimensions (area or fence used) | B – Optimizing in 3-dimensions (volume or surface area) | C – Optimizing by hand using a table (include sample calculations) |
| D – Optimizing with a table on Google Sheets | E – Optimizing Using Equations/Desmos | F – Solutions to problem solving questions |

|  |  |  |  |
| --- | --- | --- | --- |
| ITEM # | TITLE | MEDIUM (paper/computer) | Skills Demonstrated |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| 6 |  |  |  |
| 7 |  |  |  |
| 8 |  |  |  |

***PART B – REFLECTION***

You need to write answers to the following 3 questions.

1. We used 4 different methods to optimize: physical objects, making a table by hand, making a table using computer, using equations. Briefly discuss the advantages and disadvantages of each approach.
2. In your own words, explain the process of optimization step-by-step. You can use any of the methods covered in class. Be detailed and clear.
3. Reflect upon your learning in this unit. Discuss both:
   * Things you learned/liked: insights, breakthrough, new skills, connections, strengths etc.
   * Challenges: things you didn’t understand well, areas requiring more practice, things you didn’t like

***MAP4C – Optimization Self-Evaluation*** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evaluate yourself in each of the key areas of this unit. Use the rubric below.  
*Remember: you should be able to back up the evaluation of yourself using the evidence you have generated.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **R** | **1** | **2** | **3** | **4** |
| -Very little/no understanding | Limited understanding  -Will definitely need a lot of help -Will struggle to explain the process -If I got a new one, I am not confident I could do it on my own.  -I would need help just to get started | Some understanding -I know how to start, but I will need help with some steps  - I generally understand what I am doing, but have a hard time with some of the trickier steps | Good understanding  -I can do it mostly by myself (but might have a few questions)  -I could explain the process  - If I got a new one, I could probably do it on my own. | Thorough understand  -I understand and can explain all the steps along the way. -I am confident I could do a new one on my own from start to finish -I could definitely help someone that is struggling to understand |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **R** | **1** | **2** | **3** | **4** |
| A – Optimizing in 2 dimensions (area and fence used) |  |  |  |  |  |
| B – Optimizing in 3-dimensions (volume or surface area) |  |  |  |  |  |
| C – Optimizing by hand using a table |  |  |  |  |  |
| D – Optimizing with a table on Google Sheets |  |  |  |  |  |
| E – Optimizing Using Equations/Desmos |  |  |  |  |  |
| F – Questions Applying Optimization |  |  |  |  |  |
|  |  |  |  |  |  |
| Reflection Questions |  |  |  |  |  |
|  |  |  |  |  |  |
| OVERALL – Considering all the factors above, and your understanding of your own understanding, what level best represents your understanding of the optimization unit? |  |  |  |  |  |

I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, certify that the above levels represent an honest evaluation of   
  
my own understanding and accomplishments. I am prepared to provide evidence (hand-written or on the computer) that backs up the above evaluation if needed.

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