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| Last Name |  |
| First Name |  |

**Task 1** - **Modifying force diagram**

**1a : Cross Vault**

Paste a screenshot of the **form,** **force and thrust** **diagrams** *before* modifying the force diagram:

|  |
| --- |
| screenshot of the Rhino viewport,  showing the form, force and thrust diagrams |

Paste a screenshot of the **form,** **force and thrust** **diagrams** *after* the modifying the force diagram:

|  |
| --- |
| screenshot of the Rhino viewport,  showing the form, force and thrust diagrams |

**1b : Cross Vault with Central Opening**

Paste a screenshot of the **form,** **force and thrust** **diagrams** *before* modifying the force diagram:

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| --- |
| screenshot of the Rhino viewport,  showing the form, force and thrust diagrams |

Paste a screenshot of the **form,** **force and thrust** **diagrams** *after* the modifying the force diagram:

|  |
| --- |
| screenshot of the Rhino viewport,  showing the form, force and thrust diagrams |

**Task 2** - **Holes**

Paste a screenshot of the **form,** **force and thrust** **diagrams** for your shell with the central hole:

|  |
| --- |
| screenshot of the Rhino viewport,  showing the form, force and thrust diagrams |

Paste a screenshot of the **form,** **force and thrust** **diagrams** for your shell with the hole near a support:

|  |
| --- |
| screenshot of the Rhino viewport,  showing the form, force and thrust diagrams |

Paste a screenshot of the **form,** **force and thrust** **diagrams** for your **triangulated** shell with the central hole:

|  |
| --- |
| screenshot of the Rhino viewport,  showing the form, force and thrust diagrams |

What differences in terms of force flow do you observe between the three cases? (max 100 words).

What are the advantages and disadvantages of creating a hole in your shell when using a quadmesh versus a triangulated mesh? (max 200 words).

**Task 3 – Lip edges**

Paste a screenshot of the **form,** **force and thrust** **diagrams** *before* adding the lip edge.

|  |
| --- |
| screenshot of the Rhino viewport,  showing the form, force and thrust diagrams |

Paste a screenshot of the **form,** **force and thrust** **diagrams** *after* adding the lip edge.

|  |
| --- |
| screenshot of the Rhino viewport,  showing the form, force and thrust diagrams |

Briefly explain the steps you took to make the lip edge (max. 200 words).

What are the benefits of altering the highest from being in the outermost edge of the shell to where it is now? (max. 200 words)