BUILDING A TOWER PROJECT   NAME _Brooke Hassig_

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5 **Title Page**

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5 **Part One: Introduction**

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10 **Initial Approval of Part Two** (Drawing on Sketchpad – work can be hand written for approval only. In the paper it must be typed) FOR FULL CREDIT, IT MUST BE APPROVED BY ~~THURSDAY MAY 3rd~~ **MONDAY MAY 7th** *V. NICE!*

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15 **Part Two: My (Number of Sides) Sided Polygon Maximized on My Plot**
    A. **Drawing** of the base of your tower in your plot including the footing
    B   **Drawings** of the **four** polygons and the triangle used to find the area
    C. Central angle measure of the polygons (formulas and substitutions)
    D   Length of the of one side of each polygon and the height of one triangle in each polygon drawn from the center of your polygon to one side of the polygon (formulas and substitutions)
    E .Formulas and substitutions to find the area of the four polygons. Round to hundredths.

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15 **Part Three: Volume of the Concrete Needed for the Footing and the Floor**
    A. **Drawings** of the footing and floor
    B. Find the volume of the footing (formulas and substitutions)
    C. Find the volume of the floor (formulas and substitutions)
    D. Find the volume of the aquarium (formulas and substitutions)
    E. Cost analysis

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15 **Part Four: One Lateral Face of the Outer Prism Base**
    A. **Drawing** the polygon which is the base of your outer prism with side length labeled
    B. **Drawing** of one lateral face of the outer prism including a door with dimensions
    C. Explanation of how you know the dimensions of that face and door
    D. **Drawing** of. one lateral face of the outer prism including a window
    E. Formulas and substitutions to find the lateral surface area of the outer prism part of the tower

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7 **Part Five: Volume of the Inner Base Prism**
    A. Drawing the polygon which is the base of your inner prism with side length labeled
    B. Drawing of one lateral face of the inner prism
    C. Formulas and substitutions to find the volume of the inner prism part of the tower

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10 **Part Six: Pyramid Top of the Outer Pyramid showing the Height of the Outer Pyramid and the Slant Height of One Lateral Face of the Outer Pyramid**
    A. Correct drawing of the pyramid top that shows the height of the pyramid and the slant height of one face
    B. Explanation of how you know the height of the pyramid
    C. Formulas and substitutions to find the slant height of a lateral face
    D. Formulas and substitutions to find the angle measure between the prism base and the pyramid face