

Name: \_\_\_\_\_

Directions: Read the following information and complete packet by finishing each section assignment. You will need to get signatures from the instructor to confirm you finished each section assignment. NO SIGNATURE = NO CREDIT

**Project Description:**

You are a project engineer trying to win the Spencen-A Contract. In order to do so, you must design a prototype tower for testing. The prototype tower must fit the following size and shape requirements:

- Height:
- Length:
- Width:
- Additional requirements:

Your prototype tower must be able to hold 93 pounds.

**COST:** You will be accountable for the cost of the project. Every balsa wood stick and tube of glue you use will increase the overall cost of your project. Typically, clients will choose the least expensive project that can hold the requested load.

The cost of balsa wood:

- 24 inch new balsa wood stick = \$500
- One bottle of glue = \$1,000
- Scrap pieces of balsa wood = \$100

You will keep track of the cost of your project on the attached cost analysis worksheet (in back of packet).

**ASSIGNMENT #1**

Draw in your notebook a sketch of your tower.

**DEADLINE:**

**COST PENALTY:** \$500

Instructor signature \_\_\_\_\_

**ASSIGNMENT #2**

Complete Google Sketchup challenges. One class period will be spent in the computer lab, so you can complete this assignment. The challenges will be written on the board in the computer lab during the class period.

**DEADLINE:**

**COST PENALTY: \$1,000**

Instructor signature for **Challenge #1**\_\_\_\_\_

Instructor signature for **Challenge #2**\_\_\_\_\_

Instructor signature for **Challenge #3**\_\_\_\_\_

ASSIGNMENT #3

Use Google Sketchup to draw your tower. Print your drawings, so you can use them for reference during the construction phase.

**DEADLINE:**

**COST PENALTY: \$500**

Instructor signature\_\_\_\_\_

ASSIGNMENT #4

Build your tower.

**DEADLINE:**

**COST PENALTY: \$1,000**

**DAY AHEAD COST CREDIT: \$1,000**

If you are finished with your tower by the deadline, then you will receive a \$1,000 credit.

Instructor signature\_\_\_\_\_

## COST ANALYSIS WORKSHEET

Item	Cost	Quantity	Total Cost
24 inch Balsa Wood Stick	\$500		
Bottle of wood glue	\$1,000		
Scrap pieces of Balsa Wood	\$100		
Assignment #1 – failure to meet deadline	\$500	N/A	
Assignment #2 – failure to meet deadline	\$1,000	N/A	
Assignment #3 – failure to meet deadline	\$500	N/A	
Assignment #4 – failure to meet deadline	\$1,000	N/A	
<b>CREDIT</b> – tower finished a day ahead	-\$1,000	N/A	
<b>CREDIT</b> – largest weight held to weight of tower ratio	-\$1,000	N/A	