

## **Rooftop Lab – Dimensional Analysis Paper Graphic Organizer**

Name: \_\_\_\_\_ Math Period: \_\_\_\_\_ English Period: \_\_\_\_\_

Use this graphic organizer to thoroughly plan your paper. Always keep in mind that it is very possible you may wish to separate some paragraphs into two or more paragraphs in your actual paper, especially if one paragraph gets too long or hard to understand.

### **¶ 1: Introduction**

**Begin the paper by stating the exact problem you solved and end this paragraph with your original hypothesis of expected results (your guess!):**

### **¶ 2: Measuring**

**Begin this paragraph with an opening transition and topic sentence:** Examples: *To begin, the area of the walls had to be found. OR The initial step in solving the problem was to determine the area of the wall.*

**Your Opening Transition and Topic Sentence:**

**Then, fully describe the steps taken to find the total area of your wall(s).** You can just list the steps and results here and save the actual write up for when you draft your paper. Don't forget to include any definitions, special tips, diagrams, or graphics you intend to include.

1.

2.

3.

4.

5.

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### **¶ 3: Adjustments**

**Begin the third paragraph with any transition that fits as part of your topic sentence.** Examples: *Following the calculation of the area of the wall, the area of the windows in the wall had to be found and subtracted from the total area.* OR *Next, if windows are in the wall, their areas must be subtracted from the total area of bricks in the wall.*

**Your Opening Transition and Topic Sentence:**

**Then, fully describe the adjustments you needed or would have needed to your measurements.** You can just list the adjustments and results here and save the actual write up for when you draft. Remember, even if you didn't have windows or doors in your wall, you still have to explain what to do if you did have them! Don't forget to include any definitions, special tips, diagrams, or graphics you intend to include.

1.

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### **¶ 4: Dimensional Analysis & Conversions**

**Begin the fourth paragraph with any transition that fits as part of your topic sentence.** Examples: *Finally, the measurements in area were converted into actual number of bricks needed.* OR *The last step was to find the number of bricks in the wall by converting area into bricks.*

**Your Opening Transition and Topic Sentence:**

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**Then, fully describe the process of converting area in square feet into number of bricks in the wall.** You can just list the steps of conversion here and save the actual write up for when you draft. Remember, use proper vocabulary (numerator, denominator, canceling out, etc. Don't forget to include any definitions, special tips, diagrams, or graphics you intend to include.

- 1.
- 2.
- 3.
- 4.
- 5.

### **¶ 5: Conclusion**

**Begin the final paragraph with any transition that fits as part of your topic sentence.**  
Examples: *Overall, the process of dimensional analysis is extremely useful in many ways.*  
OR *Once the process was complete, we found that our original estimate was surprisingly inaccurate.*

**Your Opening Transition and Topic Sentence:**

**Then, end the paper by discussing how close your original estimate (hypothesis, guess) was to the actual number of bricks AND by discussing the everyday applications of dimensional analysis.** You can just list these topics here and save the writing for your rough draft.

- 1.
- 2.
- 3.
- 4.
- 5.