**Data Collection Sheet**

**Collect Your Data**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Polygon(# sides)** | **Sum of Interior Angles** | **Measure of Angle 1** | **Measure Angle 2** | **Deflection of Angle 1\*** | **Deflection of Angle 2\*** |
| Triangle (3) |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**\*Tip for finding the deflection angle:**You have the initial measurements of the target angles. Once you apply load to your truss, the target angles change. *Calculate the change* between the initial target angle and the deformed angle. The change is called the deflection angle.

|  |  |  |
| --- | --- | --- |
| **Load capacity:****# of books the truss supported** | **First iteration =**  | **Second iteration =**  |

**Graph Your Data**

* 1. Graph the deflection in each angle vs. the number of sides in each polygon.



* 1. Graph the number of books your truss supported vs. the number of sides in each polygon.

