

Data Collection Sheet **Example Answers**

Collect Your Data

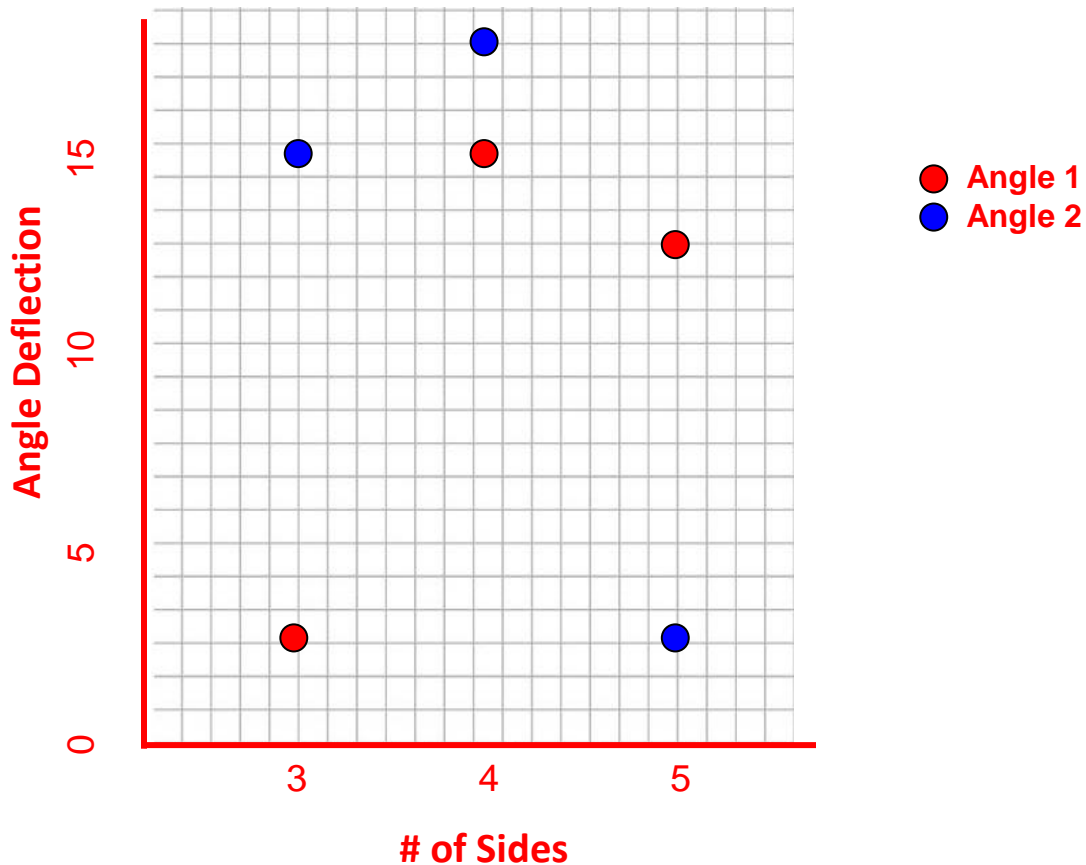
Polygon (# sides)	Sum of Interior Angles	Measure of Angle 1	Measure Angle 2	Deflection of Angle 1*	Deflection of Angle 2*
Triangle (3)	180	60	65	$60-(57)=3$	$65-(50)=15$
Pentagon (5)	540	113	103	$113-(100)=13$	$103-(100)=3$
Square (4)	360	90	90	$90-(75)=15$	$90-(70)=20$

***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 = 2	Second iteration = 3
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Graph Your Data

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



Name: _____ Date: _____ Class: _____

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

