

Student Worksheet
Investigating the Sum of Polygon Angle Measures

NAME: _____

Class Period: _____

DATE: _____

1) Fill in the Table Below.

Number of Sides of the Polygon	Number of Triangles Created	Total Degrees = # of Triangles x 180

Formula or Pattern:

2) Now construct a 10-sided figure. Does your formula still work? Explain.

3) Graph your data.

Record your function: _____

4) Compare your function and equation? Explain similarities and differences.

5) Calculate the total degrees of a 35-sided figure using both your formula and equation. Analyze your results: are they the same, different? Why?

6) Calculate the number of degrees of a 45-sided figure using both your formula and equation. Analyze your results: are they the same, different? Why?