



NOTE: This activity requires the use of a “Spirograph.”

Spirograph stars are influenced by the different gears used to make them. Any set of numbers can be compared using common factors. What is the relationship between Spirograph stars and common factors? Review the concepts of Greatest Common Factor (GCF).

Draw a simple star with two wheels of the Spirograph. Count the number of points in the star. Repeat using different wheels. Record your results each time and use them to discover a relationship between the greatest common factor of the number of points in the star and the number of teeth in the gears. More than one formula can be found.

Transfer the stars to poster paper. Write a paragraph beside each star describing the formula used, and how the GCF is used to determine or predict the number of points in a Spirograph star.