Level 3 Special Project
Graphs
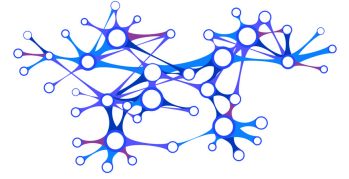
Prerequisite Concepts	Concept 12
Key Concepts	Concept 15

A *complete graph* is a graph in which every pair of vertices is connected by an edge. A special kind of complete graph is created when the vertices of a graph are spaced equidistantly on the perimeter of a circle. The resulting image is sometimes called a *mystic rose*.
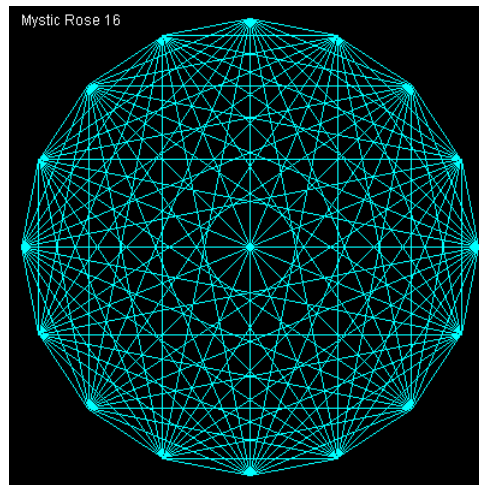
Raymond Lull (ca. 1232 – ca. 1315), a philosopher, logician, and Franciscan tertiary (who lived long before Euler) created a number of drawings that included a mystic rose.
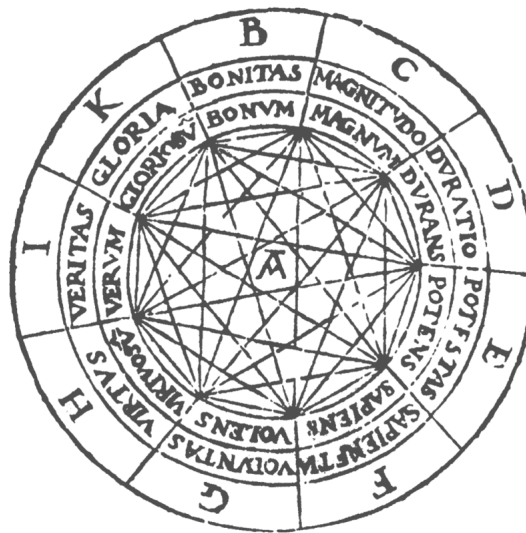

Figure 1: *Ars Magna* by Raymond Lull

Build a mystic rose-like LEGO® artifact similar to the one shown below. Note that in order to simplify their calculation, the points in the artifact below fall on the sides of a square and not on a circle. Before building this artifact it is recommended that you complete all Vitruvia exercises for Concept 15.