

1046-Z1-784

Jason J Molierno* (moliernoj@sacredheart.edu), Sacred Heart University, Department of Mathematics, 5151 Park Avenue, Fairfield, CT 06825-1000. *Enumerating Graphs to Conveniently Produce Adjacency Matrices Using Maple or Mathematica.*

When working in graph theory, it is often useful to represent a graph using either the Adjacency Matrix or the Laplacian matrix. However, if the graph is large, it can be cumbersome to type such a large corresponding matrix into mathematical software such as Maple or Mathematica. In this talk, we investigate convenient ways that we can assign a graph a single number. Once the number for a graph is determined, I then show how we can construct a program so that the Adjacency matrix or Laplacian matrix for the graph can be instantly produced simply by typing a single number! (Received September 11, 2008)