1145-05-1917        **Julie Yuan\***, yuanx254@umn.edu, and **Teresa Yu**, **Frances Dean** and **Ivan Aidun**. *Graphs of Gonality Three.*

In 2013, Chan classified all metric hyperelliptic graphs, proving that divisorial gonality and geometry gonality are equivalent in the hyperelliptic case. We show that such a classification extends to combinatorial graphs of gonality three, under certain edge-connectivity assumptions. We also give a construction for graphs of gonality three, and provide conditions for determining when a graph is not of gonality three. This work was done this summer as part of the SMALL REU in Mathematics. (Received September 24, 2018)