

1106-Q5-2203 **Jodin Morey*** (we9180ef@metrostate.edu), Metropolitan State University, 700 East 7th Street, Saint Paul, MN 55106, and **Rikki Wagstrom** (rikki.wagstrom@metrostate.edu), Metropolitan State University, 700 East 7th Street, Saint Paul, MN 55106. *Comparing Greenhouse Gas Emissions from Automobile Fuels: An Exploration for Algebra Courses.*

In this presentation, curriculum developed by an undergraduate math education major and a math faculty mentor will be discussed. The curriculum, appropriate for college algebra and pre-calculus courses, explores the environmental impact of the most common liquid fuels we use in our automobiles. In particular, the curriculum guides students to calculate and evaluate the greenhouse gas emissions of conventional gasoline, diesel, different ethanol blends, and biodiesel. The curriculum incorporates a range of quantitative literacy and algebraic skills: calculating and interpreting percent changes, working with units and unit conversion, calculating rates of change, and deriving and using multivariable functions. This curriculum was piloted and evaluated in three sections of algebra courses during fall 2014. Student responses from the evaluations will be highlighted. The benefits and challenges of this type of experience for advanced math education majors will also be discussed. (Received September 16, 2014)