

1145-P5-1690 **Justin R. Dunmyre***, jrdunmyre@frostburg.edu. *How much pavement do you need? A simple prompt with rich opportunities for creativity in first semester Calculus.*

During the last week of the first semester of Calculus, my students receive the following: a screen capture from Google Maps, a superimposed grid, two points labeled A and B, and the prompt “How much pavement would you need to cover the surface of this road between A and B?” This prompt is both relatable and has a low barrier to entry, but most importantly, it inspires many creative ideas that will bring together essential concepts of Calculus. In this talk, I will share what creative approaches my students have used, and how I leverage those approaches to introduce topics including: the area between two curves, the arc length, Lagrange interpolation, and numerical integration. (Received September 23, 2018)