

### Problem of the Week

Problem #4

Due 10/07/16

Michelle is driving in a large flat desert, and after every mile of driving she turns either left or right by angle of  $A$  degrees, possibly shifting between forward and reverse after the turn. After her 9<sup>th</sup> turn she is back where she started, ready to retrace her route, although perhaps facing backwards relative to her starting position. What is the smallest angle  $A$  she could be using? You may assume that each turn takes a negligible distance to accomplish.

Submit your work and solution at the next Talk Math 2 Me or to Joni Schneider at [js1824@txstate.edu](mailto:js1824@txstate.edu) with your name, student ID (A00...), major, classification, what math course you are currently taking, and email.