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**Anthony Shaheen\*** ([ashahee@calstatela.edu](mailto:ashahee@calstatela.edu)), California State University Los Angeles, Mathematics Department, 5151 State University Drive, Los Angeles, CA 90032, and **Caleb Emmons** and **Mike Krebs**. *How to Differentiate an Integer Modulo  $n$* .

One way to generate an undergraduate research project is to take a familiar mathematical object and attempt to make sense of it in a completely different setting. Here, we will make sense of the concept of differentiation in the setting of the integers modulo  $n$ . A number derivative on the integers modulo  $n$  is a map from the integers modulo  $n$  to itself which satisfies the product rule. After classifying these maps, we will present a list of undergraduate research projects one can pursue using these maps as a starting point. (Received January 05, 2009)