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Kwang Hyun Kim* (kkim@qcc.cuny.edu). *Embedding python programming experiences in Calculus I with Sage*. Preliminary report.

Computer Science (CS) is one of the popular degrees and mathematics is an important part of CS. But we believe that CS can also help students master their core math. Programming improves problem solving skills. Visualization and experimental learning from programming allows students to understand abstract concepts concretely. But there are some risks. Some students may not have suitable programming experiences. Students in remedial level mathematics courses may not be ready to get enough benefits from programming and lose opportunity to develop good “basic math sense”. Therefore, it is important to integrate an appropriate math course and programming environments properly. In this presentation, we share our experiences in embedding a python programming with the Sage library in a calculus I course and introduce some of sample lab activities. (Received September 25, 2018)