There is no clear rule for teachers when to let their students use calculator in the lower level mathematics courses involving basic arithmetic skill. This article analyzes the performances of 198 college students in solving different levels of basic arithmetic skill questions with and without using calculators. Statistical analysis and tests have been conducted to see the correlation and the difference between using and without using calculator. The results of this article indicate that college students do better using calculator when the calculation involves a single operation. Even though most of the students struggle to solve the problems with and without using calculator when the questions involve more than one operation, indices, surd, comparisons, percentages, and approximations, students do better when they are allowed to use calculator. The data in this article provides important information for teachers teaching mathematics and other courses involving basic arithmetic skills, and encourages global study on how and when to use calculator in lower level college classes involving basic arithmetic skill. (Received August 22, 2013)