CCSS Math Practices Alignment Sample
Activity: "Factoring Composite Numbers" for the TI-84 Plus Family

Note: This alignment sample is intended to highlight opportunities to use TI Technology to help facilitate students' participation in the CCSS Standards for Mathematical Practice. The prompts and examples provided here are from the Teacher and Student activity documents and demonstrate how the activity can be used to engage students in the Practices. It is possible the activity can be used to engage students in the other Math Practices that are not specified here.

5. Use appropriate tools strategically.	
Students should: - Consider the benefits and limitations of the available tools to decide which are appropriate for solving a given problem. - Understand how technology can help visualize and explore results, find patterns and compare relationships. - Use technology to model problems and to analyze and justify their results. - Use technology to deepen their understanding of concepts.	*TI-84 Plus Technology and Teaching Tips:* - Discuss how to use a calculator's history to construct the factor trees. - Discuss what is needed to construct the factor trees and then determine which tools might be appropriate for solving it. - Have students discuss other situations in which it is not necessary to use a calculator or graphing tool.
7. Look for and make use of structure.	
Students should: - See the "big picture" in a problem and look for patterns in intermediary results. - Identify patterns and use previous knowledge to leverage those relationships to solve problems.	*TI-84 Plus Technology and Teaching Tips:* - In small groups, ask students to discuss the following and to record their responses as a group: o What if the factor tree starts with two different factors than the ones shown? Will you still get the same answer? Challenge students to change the factor tree using two different starting factors. o Does it matter in what order I list the final prime factors? Why might someone prefer that the numbers be listed in ascending order? - Why is the exponent form used for the prime factorization?
8. Look for and express regularity in repeated reasoning.	
Students should: - Discern patterns in calculations and formulas. - Use previous knowledge to find and apply general methods to solve problems. - Attend to details and evaluate the reasonableness in intermediary results.	*TI-84 Plus Technology and Teaching Tips*: - Discuss students' Frayer Squares as a class, recording their responses on the board. What patterns emerge?