

2.11 *Technology:* TI-83 Plus Calculator: Creating Repayment Schedules

Specific Expectations

The following expectation is common to both the Functions and Relations and Functions courses.

- FA3.03 generate amortization tables for mortgages, using spreadsheets or other appropriate software

Evidence of Learning

Students should be able to

- access some functions in the Finance CALC menu of the TI-83 Plus calculator
- create a repayment schedule using the TI-83 Plus

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Time Required Functions and Relations or Functions: 75 min

Materials and Equipment

- TI-83 Plus calculator

Overview

- Use the TI-83 Plus to calculate the total interest paid, the total principal paid, and the balance in a repayment schedule.
- Create a complete repayment schedule with the TI-83 Plus.
- The ΣInt , ΣPrn , and **bal** functions are useful to get specific information. While the TI-83 Plus is more portable than a computer, only a small portion of the repayment schedule is visible in the screen.

Management Options

Groups – Pairs can easily work through the entire lesson and practice. Ensure that timid calculator users get their share of practice.

Teacher Demonstration – When students have completed the three parts, they may choose to present the solutions to the practice. Discuss the advantages and disadvantages of using spreadsheet software and a graphing or a scientific calculator to create amortization schedules at the end of this class or the beginning of the next class.

Independent Work – Students are particularly attentive to their classmates when they act as teachers. Four pairs of students could present the four parts to the class using the TI-83 Plus and view screen. Each pair must consult with the teacher before their presentation to ensure comprehensive coverage of the topic, which will provide an opportunity for the teacher to assist students who are struggling with the technology. Provide support during the presentation. Individuals might opt to present the solutions to Practice 2.8 using the view screen. Other individuals might choose to help their classmates during a practice session; this is especially helpful if some students have had little experience with the graphing calculator.

Questions with a Functions and Relations Focus:

a–f

Questions with a Functions Focus:

a–f