

 <p>Lenses on Learning The Secondary Series</p>	<p>Handout 4.d</p> <h2>The <i>Basic Student Budget</i> Task</h2>
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[p.1]

The Basic Student Budget

Cal, Bernie, and Doc are college students on basic student budgets. Sometimes the three have a little difficulty keeping to their budgets. Their biggest problem is the rent.

The total rent for their apartment is \$900, which is split evenly among the three roommates. The rent is due on the last day of each month, and the guys don't get paid until the first day of the next month. Their landlord has no tolerance for late payments.

Each of the three students had a different amount of money after being paid on April 1. At the end of that day, Cal had \$1100, Bernie had \$800, and Doc had \$600. As the month goes by, they each make notes occasionally of how much they have left at the end of the day. The table shows their records so far:

Amount of Money Remaining (in dollars)			
Date	Cal	Bernie	Doc
April 3	996	766	570
April 10	704	698	490
April 17	440	626	430

[p.2]

1. Sketch and label a graph that accurately represents this situation. (Show all three students *on the same graph*.)
2. Who will be able to pay his rent on time and who will not? How do you know? Explain.
3. Find an approximate rule for each roommate that will tell him how much money he should expect to have on the n th day of the month. Show your work.
4. It's April 21, and there's a great concert on campus. This would be an extra cost, beyond the three students' normal expenses. How much, if anything, can each one spend and still have enough for rent money on April 30?

Source: Adapted from Interactive Mathematics Program, Year 1, Key Curriculum Press, 2009.