Using the TI-BA II+ calculator for financial calculations
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This is a brief guide to using the TI BA II+ financial calculator. It does not replace your instruction booklet, nor does it replace actually practicing with the calculator. In the materials below, Bold Face indicates that you press a key with that label on your TI BA II+. # below indicates that you press a number key on your TI BA II+. 2nd indicates that you press the gray shift key that accesses the secondary functions of the keys.

**Setting up your calculator.** To set the number of digits after the decimal point, press 2nd Format # ENTER where # is the number of digits you want to display after the decimal point.

**Financial calculations.** To set your calculator for beginning of period mode, press 2nd BGN. Then, entering 2nd SET will toggle between begin and end mode. To enter the number of periods in a year press 2nd P/Y, enter # (the number of periods in a year), and press ENTER (for example, enter 2nd P/Y 12 ENTER for monthly).

You should use the following sign convention when you work on financial calculations:
- Treat cash flows you are receiving as positive numbers.
- Treat cash flows you are paying out as negative numbers.

To turn a positive number into a negative number, enter the number on your keypad and press +/-.

For the calculations below, you must first clear your calculator by entering 2nd QUIT 2nd CLR TVM. In each of these calculations, remember the sign convention! If you have an error, either that or omitted data is the most likely cause.

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<th>To calculate</th>
<th>First clear</th>
<th>Next enter</th>
<th>Next enter</th>
<th>Next enter</th>
<th>Next enter</th>
<th>Push for result</th>
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<tr>
<td>Future value</td>
<td>See above</td>
<td># N</td>
<td># I/Y</td>
<td># PMT (if any), Annuity payments</td>
<td># PV (if any), Single payments now</td>
<td>CPT FV</td>
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<tr>
<td>Present value</td>
<td>See above</td>
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<td># PMT (if any), Annuity payments</td>
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<tr>
<td>Interest rate</td>
<td>See above</td>
<td># N</td>
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<tr>
<td>Annuity payment</td>
<td>See above</td>
<td># N</td>
<td># I/Y</td>
<td># PV (if any), Single payments now</td>
<td># FV (if any), Single payments at time N</td>
<td>CPT PMT</td>
</tr>
</tbody>
</table>

**To amortize a loan.** Do the steps for annuity payment as shown above. Press 2nd Amort.
Clear the worksheet by pressing 2nd CLR Work. The up and down arrows allow you to scroll through the variables easily. The display P1 = # is the first period you want to amortize, and the display P2 = # (displayed by pressing the down arrow) is the end of the period you want to amortize. For example, to do periods 1 to 5, press 1 ENTER at P1 = #, then scroll down to P2 = # and press 5 ENTER. Then,
- To display the remaining balance of the loan, press the down arrow.
- To display the amount of principal you paid in this interval, press the down arrow again.
- To display the amount of interest you paid in this interval, press the down arrow again.

To do subsequent period amortizations, enter new values for P1 and P2 and follow the steps listed above.

**To calculate IRR and NPV.**
- Press CF to access the cash flow worksheet.
- Clear previous data by pressing 2nd CLR Work.
- In entering your data, remember that CF0 is the flow at period zero; C01 is the first flow after time zero; C02 is the second flow after time zero, etc.
- To enter each flow, press # ENTER. If the cash flow is repeated, enter # ENTER when the F0n variable is shown on the display. (For example, if you have three $100 flows in a row, press 100 ENTER down arrow 3 ENTER)
- Press the down arrow key to get to the next cash flow.
- After you have entered all the cash flows:
  - To calculate an NPV, press NPV, enter the interest rate (# ENTER), scroll down using the down arrow key to display NPV, and press CPT.
  - To calculate an IRR, press IRR and press CPT.