

Open the Financial application.

Tap **Edit, Clear All**.

Tap **Compound Interest**.

Tap the **Format** tab.

Check the settings are as shown. If not, adjust.

*Suppose a student wishes to purchase a car priced at \$4000. The student has no savings but due to a part-time job can afford to repay \$350 every month. A bank offers the student a loan of \$4000 at an annual interest rate of 15% compounded monthly. How many complete months will it take the student to repay the loan?*

Tap the **Help** tab.

Enter the values shown.

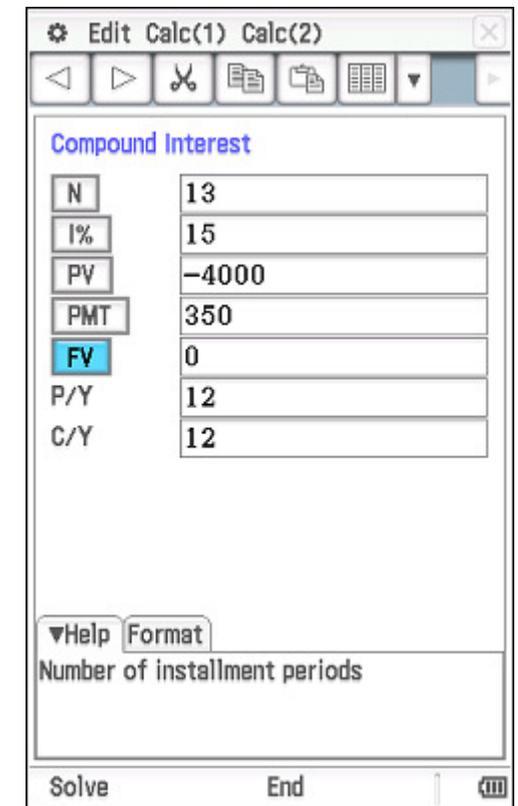
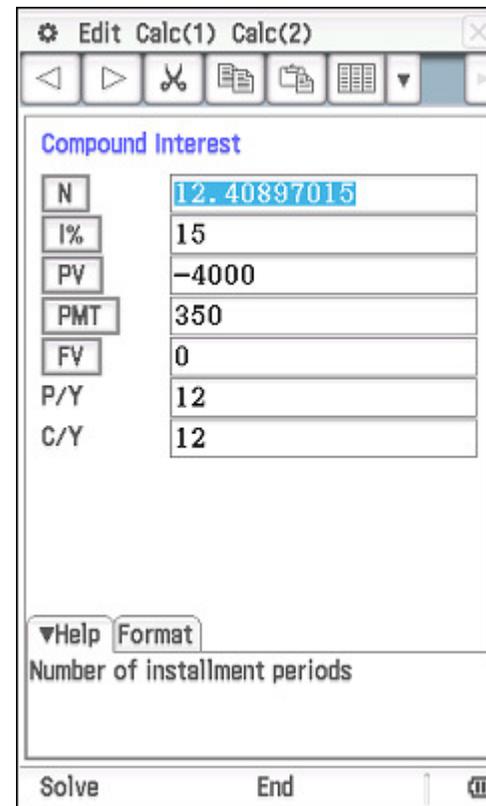
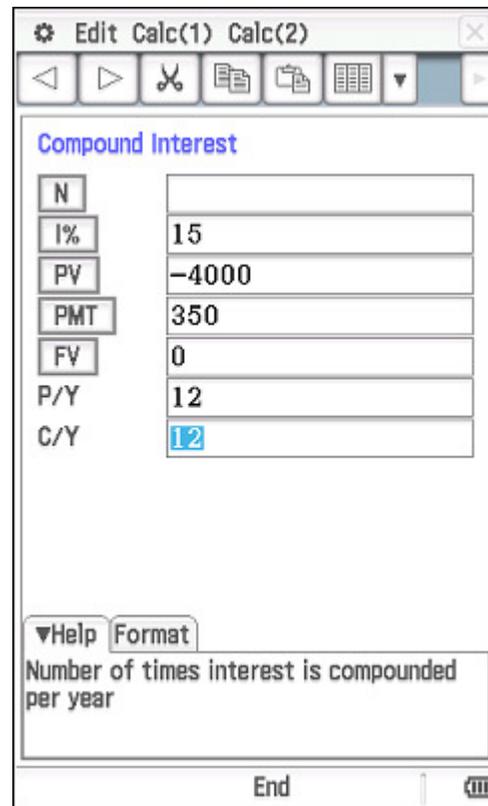
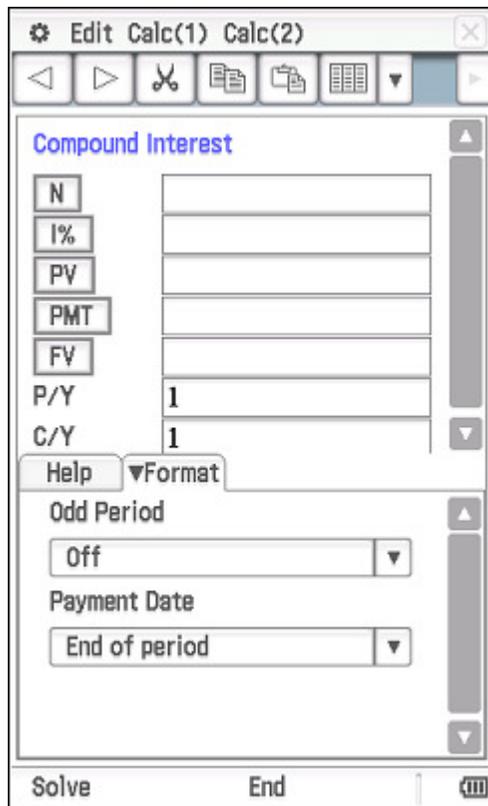
As you enter each value, the Help box at the bottom of the page explains the meaning of each variable.

Tap the **N** icon.

Since the number of installment periods must, in practice, be a whole number, 12.41 is rounded up to a solution of 13 months.

*Determine how much interest will be paid in total on the loan.*

Set **N** to exactly **13** and tap the **FV** icon.



We can now see that the final payment of \$350 was \$206.33 too much, and so in should have been \$143.67.

The total repaid was 13 payments of \$350 less \$206.33 (\$4343.67).

The total interest paid is \$343.67 - the total repaid less the original loan of \$4000.

*Determine the monthly repayment to repay the loan in exactly 12 months.*

Set the **FV = 0**, **N = 12** and tap on the **PMT** icon.

12 monthly payments of \$361.03 would pay off the loan.

*How much could be borrowed if the student could afford \$400 repayments for 12 months?*

Set the PMT to 400 and tap on the **PV** icon.

The student could afford a loan of just over \$4430.

Compound Interest

N	13
I%	15
PV	-4000
PMT	350
FV	-206.3347807
P/Y	12
C/Y	12

▼Help Format

Future value

Solve End

Compound Interest

N	12
I%	15
PV	-4000
PMT	350
FV	0
P/Y	12
C/Y	12

▼Help Format

Number of installment periods

Solve End

Compound Interest

N	12
I%	15
PV	-4000
PMT	361.0332494
FV	0
P/Y	12
C/Y	12

▼Help Format

Amount paid each period

Solve End

Compound Interest

N	12
I%	15
PV	-4431.724786
PMT	400
FV	0
P/Y	12
C/Y	12

▼Help Format

Present value (initial investment)

Solve End