

## Using the Finance Solver (Tutorial E5)

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You can use the Finance Solver in the Calculator application to solve standard Time-Value-Money, or TVM, calculations.

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In this example, I need to solve for a present value. I know I need to have \$50,000 in 4 years, and I want to open

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a savings account today. The savings account has an 8% interest rate compounded monthly. I want to know how much I need

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to deposit into the account today to have that \$50,000 after 4 years. First, let's insert a new calculator page

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by clicking Insert and selecting Calculator. To open the Finance Solver, I'll click Finance and choose Finance Solver.

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Now I just need to enter in my variables. N is the total number of periods. The interest is compounded monthly over

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4 years, so that's 4 times 12 months a year, for a total of 48 periods. I'll type 48, and then press the Tab key

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to move to the next field. I is the interest in percent. My interest rate is 8%, so I'll type 8, and then press

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Tab. PV is present value, which is what I want to know, so I'll skip over that for now by pressing Tab again. Pmt

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is payments. I'm not paying anything out of the savings account for 4 years, so I'll make sure that it says 0, and

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press Tab again. FV is future value. After 4 years, I want to have \$50,000, so I'll type 50,000, and then press the

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Tab key. PpY is the number of payments per year, which in this case is once per month for a total of 12, so I'll

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enter 12 and press the Tab key. CpY is the compounding periods per year. In this case, it's the same as the number

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of payments per year, and you can see that the number I entered into PpY carried over. So I'll just press the Tab

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key again. The last field is the annuity payment method. Unless otherwise specified, the interest is typically compounded

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at the end of the term, so we'll leave it set to the default, and press the Tab key. Now that we've entered all our

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variables, I'll press the Tab key twice to highlight the Present Value, or PV variable, and then press the Enter

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key to evaluate it. I can see that I will need to deposit approximately \$36,346.03 today in order to have \$50,000

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in four years. It's important to note that all of these values are stored as variables. If I need to use the PV

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variable in another calculation in the Calculator, for example, I can just close this box and press the Var button and then

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choose tvn.pv. Now, if I press Enter, you can see that the value has been stored in that variable.

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