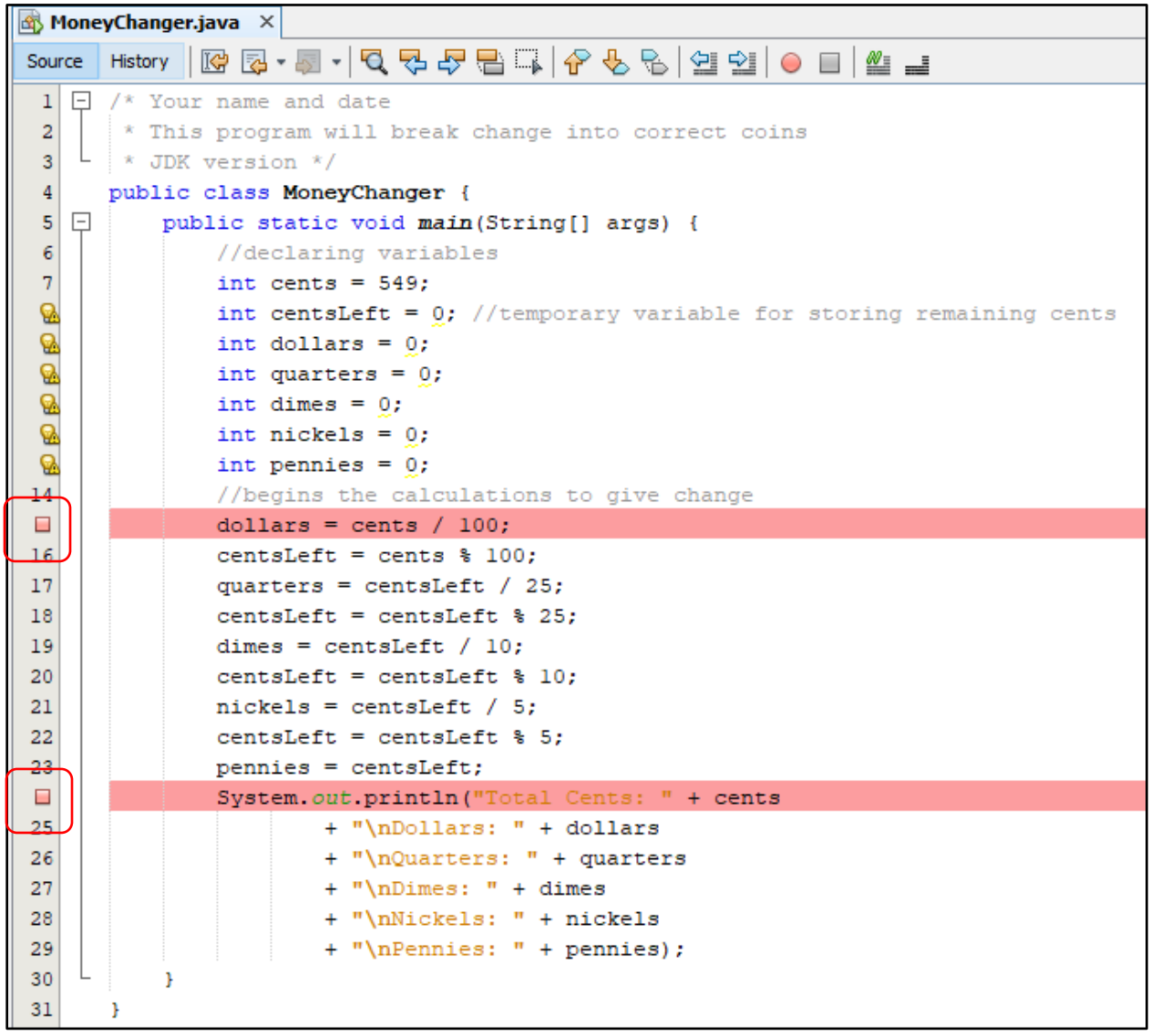
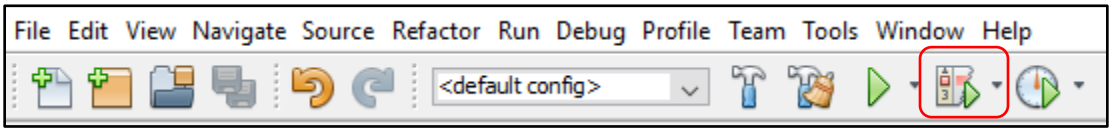
NetBeans Debugger

The NetBeans Debugger allows you to place breakpoints in your source code and step through your code looking for errors. We are able to watch how variables change throughout our program and evaluate expressions. There are many more advanced features of the debugger that we are not going to cover. This section will just give you a brief introduction of debugging.

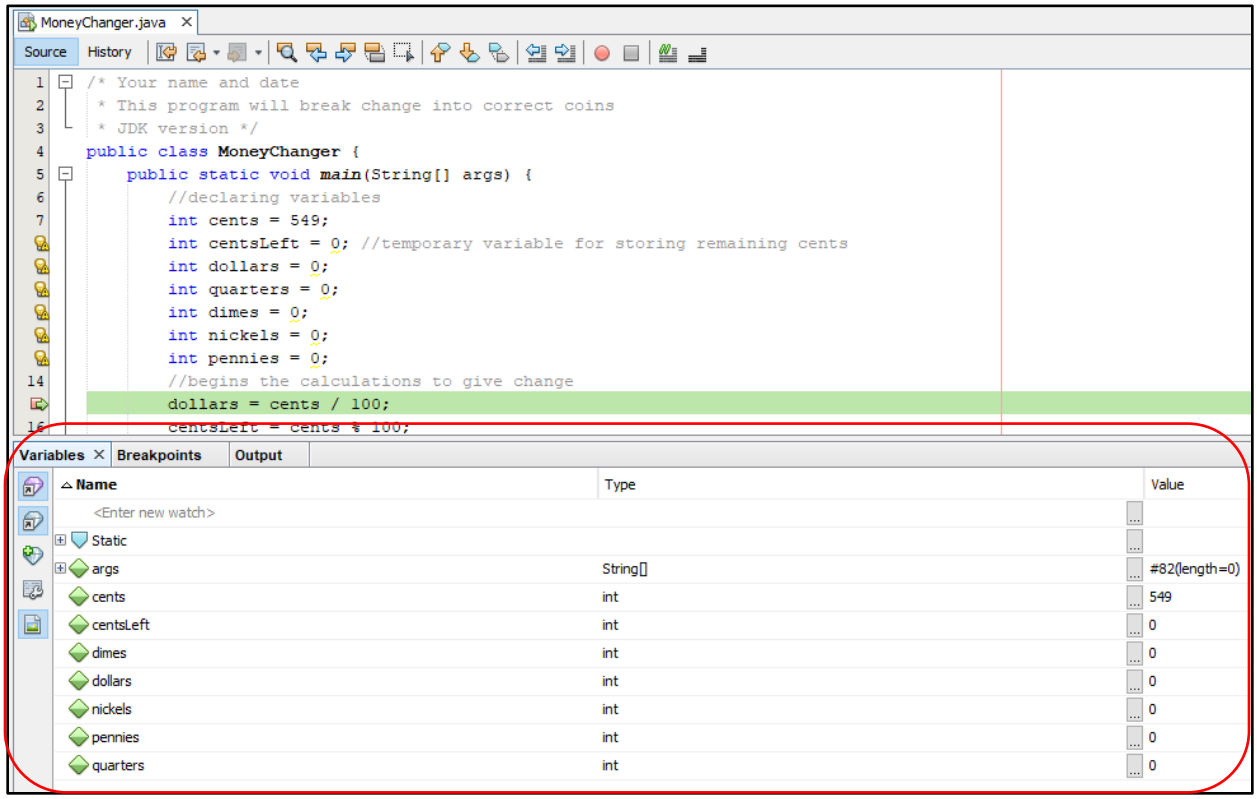
To start debugging, you will need to open the file that contains the code that you want to debug. You will need to create a breakpoint at each line that you want to pause to debug. To create a breakpoint, click on the line code that needs debugging and choose Debug > Toggle Line Breakpoint or click in the sidebar to the left of your code where the line number is located. Let's use the MoneyChanger exercise as an example, since it has a few variables that we can monitor. The breakpoints were set before our equations and after so that we can watch the variable values change.



After setting the breakpoints, we will click on the **Debug Project** button.



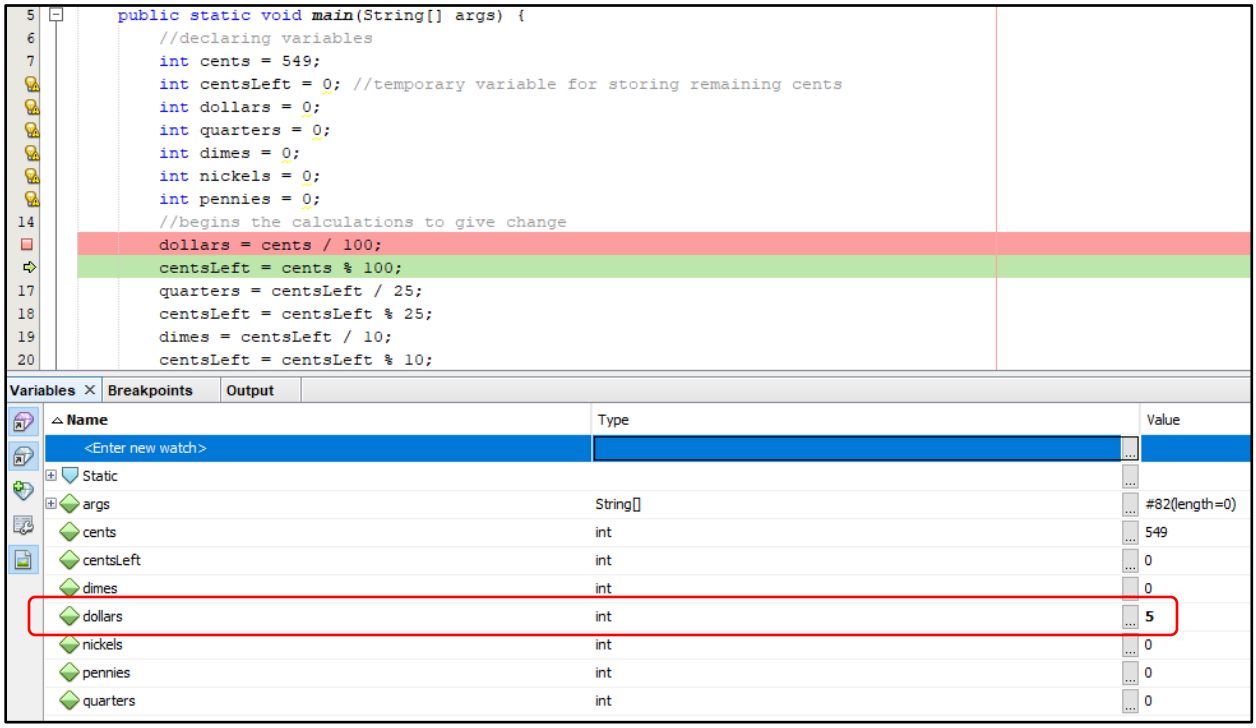
The debugger should display a tab with your variables as shown below. The variable type and value will be indicated. You should see that the cents variable is initialized to 549 and the other variables are set to 0.



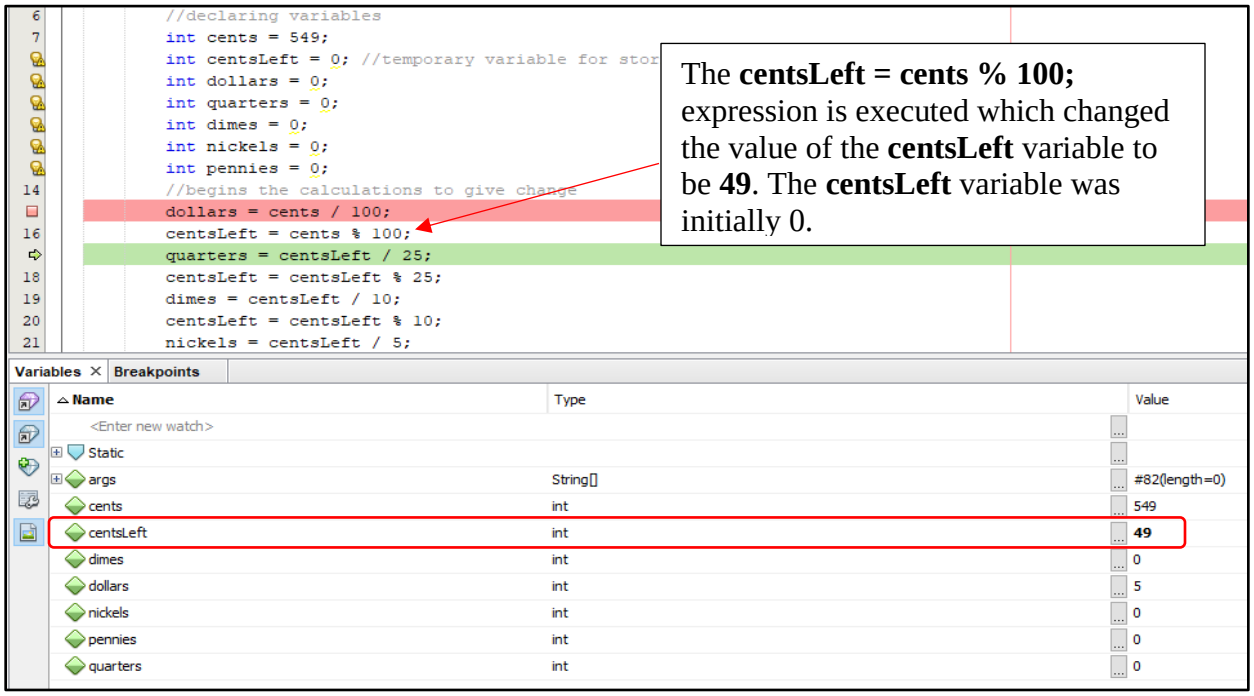
You should notice a new section of the toolbar for debugging.

The basic choices are to finish debugging the program, pause the debugging, continue to the next breakpoint, or to step over your program.

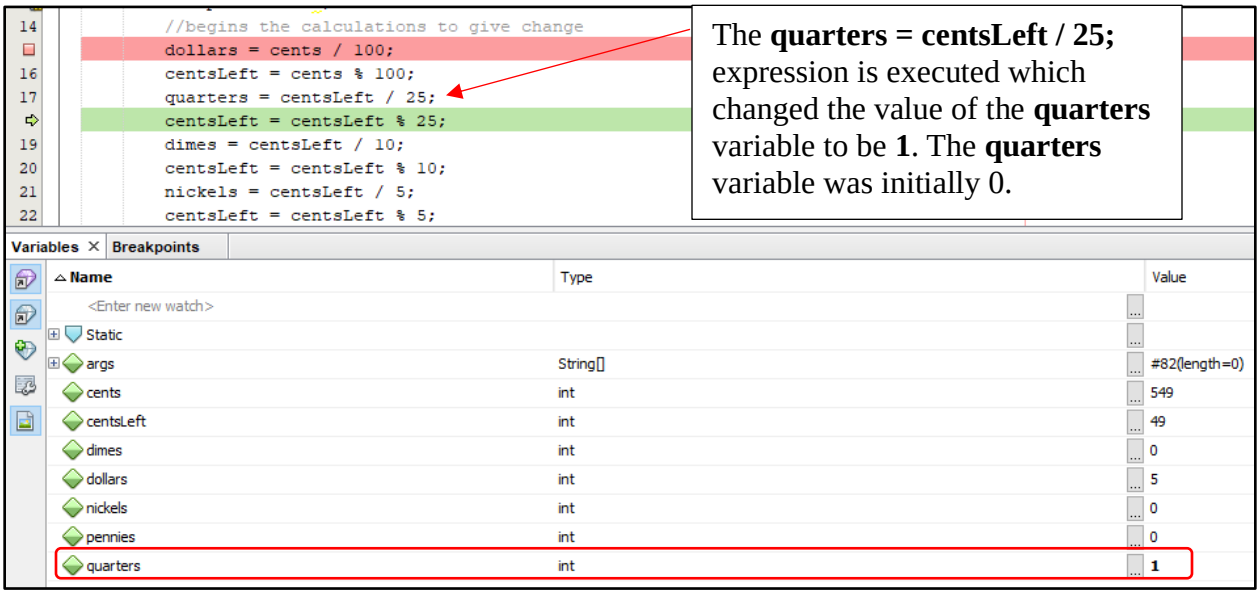
Let's use the step over button  so that we can see the how each expression changes the values of our variables. This causes the **dollars = cents / 100;** expression is executed which changed the value of the **dollars** variable to be **5**. The **dollars** variable was initially 0.



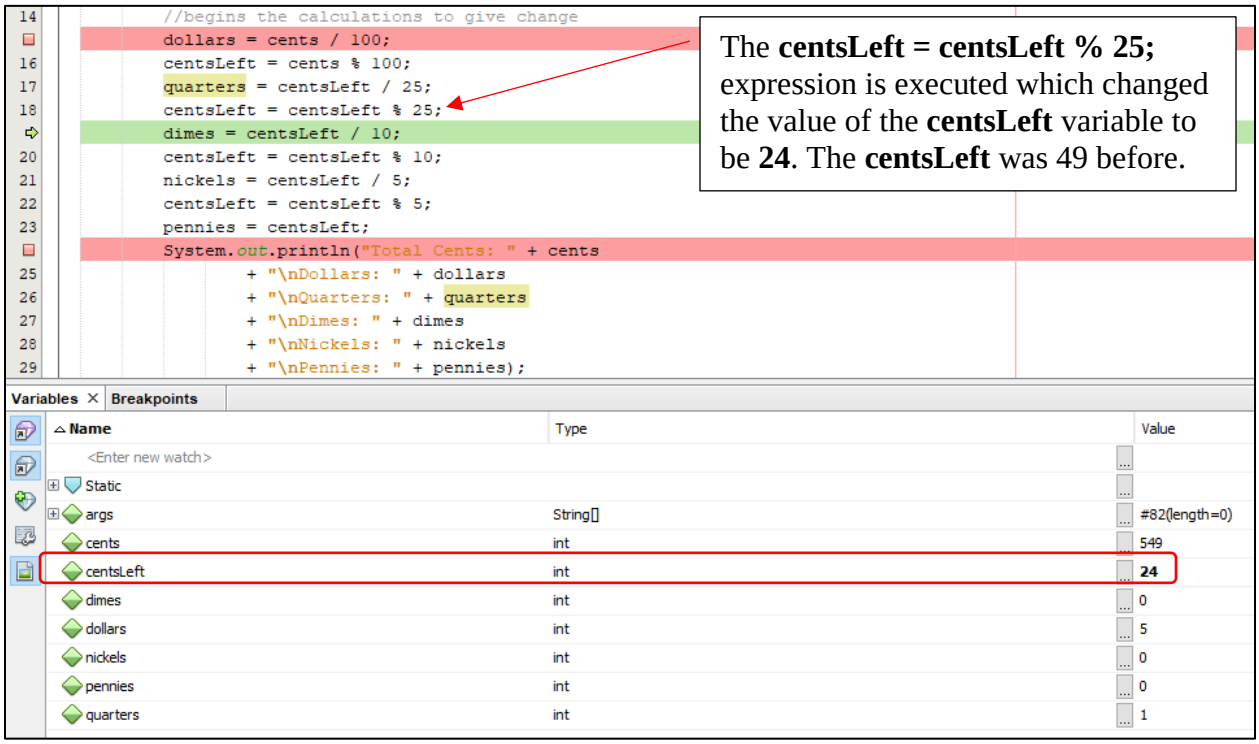
Let's use the step over button  again.



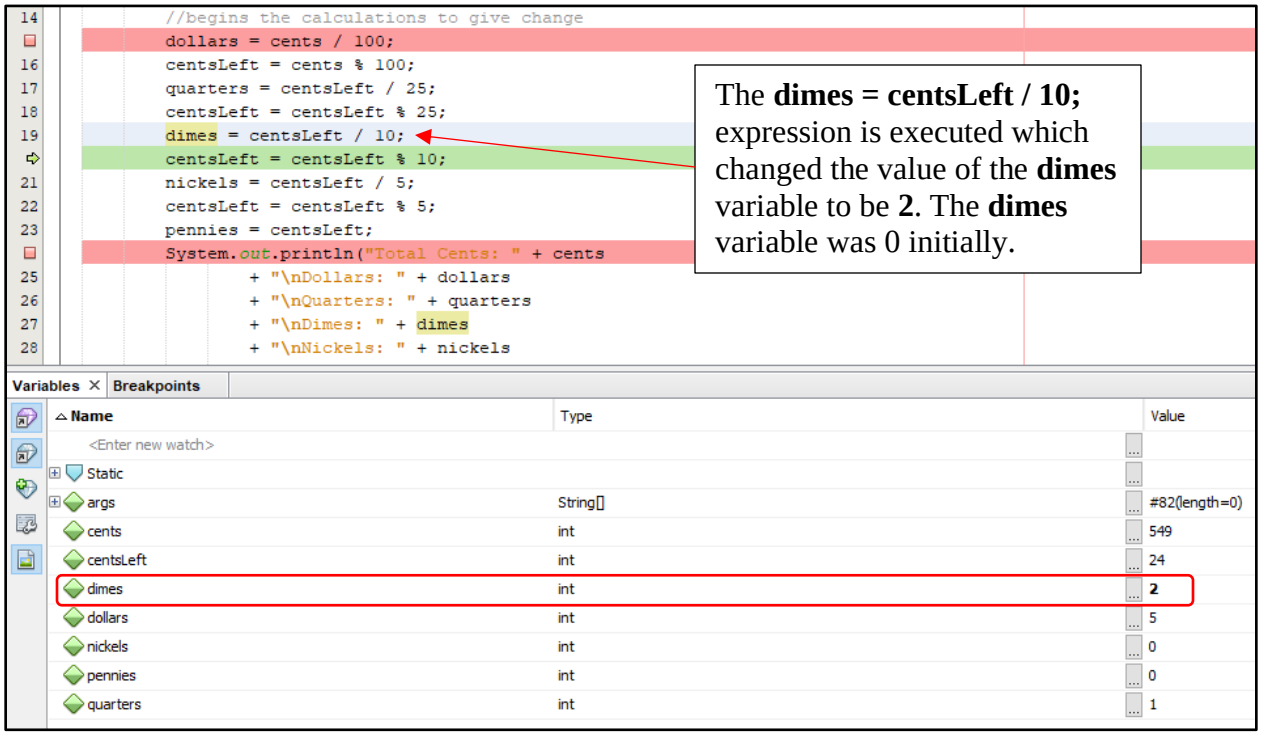
Let's use the step over button  again.



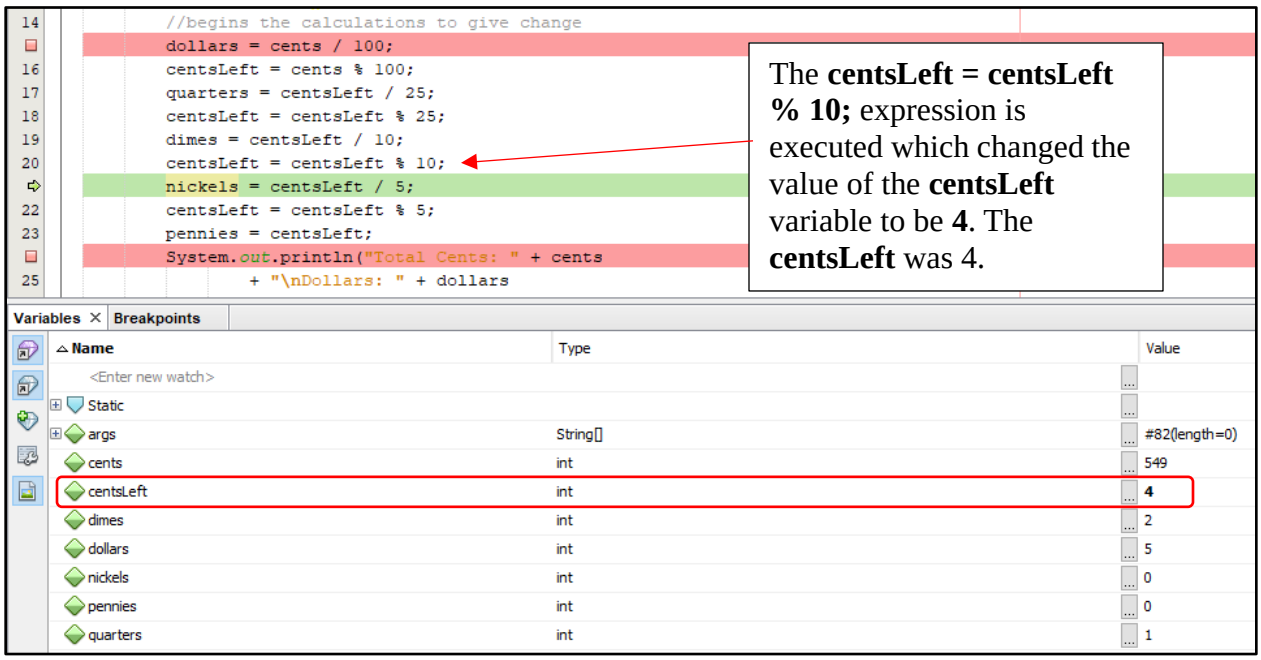
Let's use the step over button  again.



Let's use the step over button  again.



Let's use the step over button  again.



Let's use the step over button  again.

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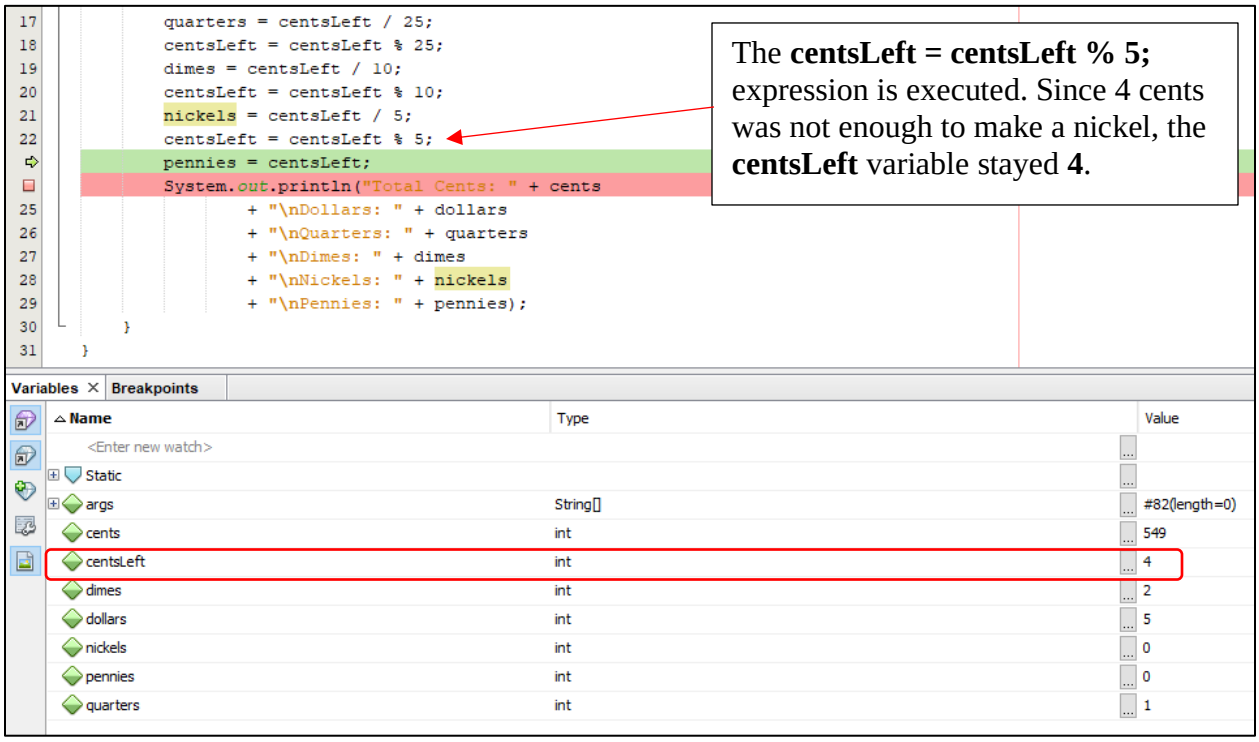
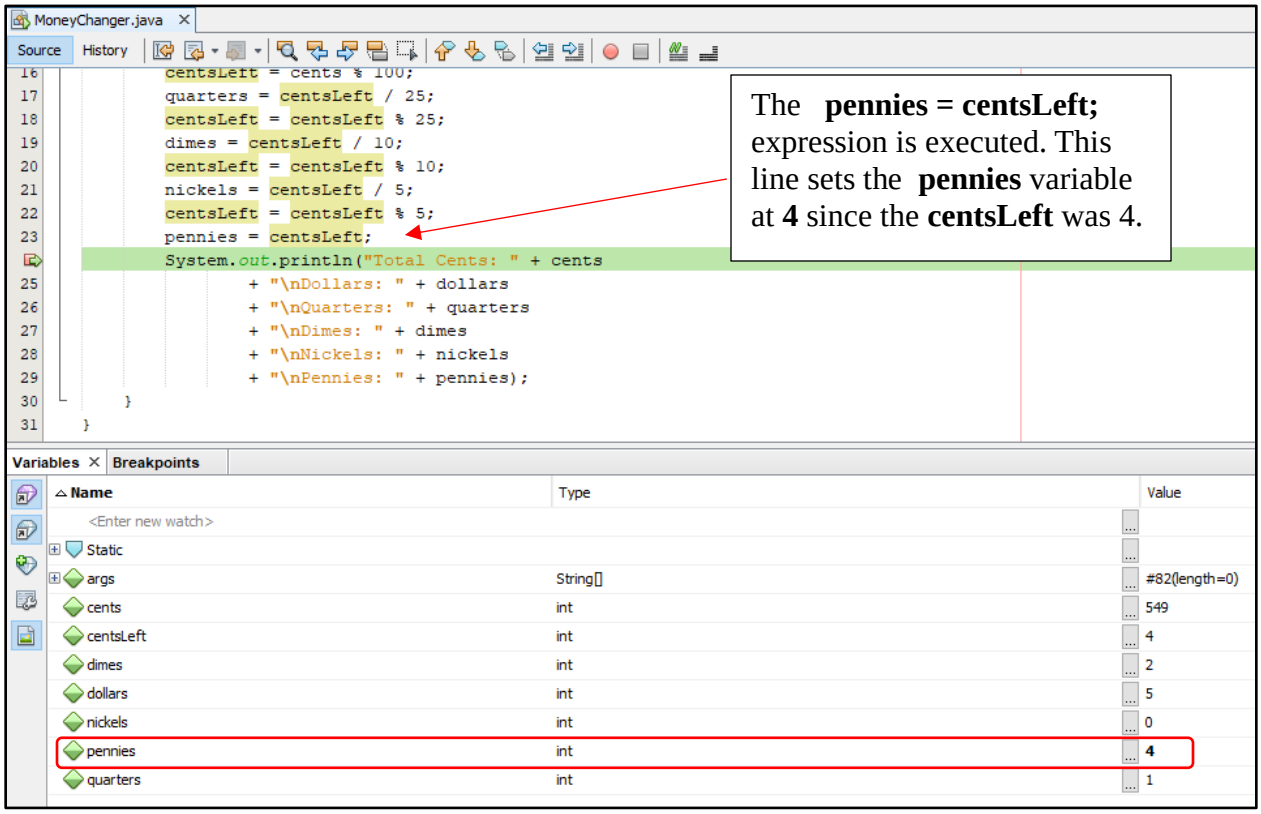
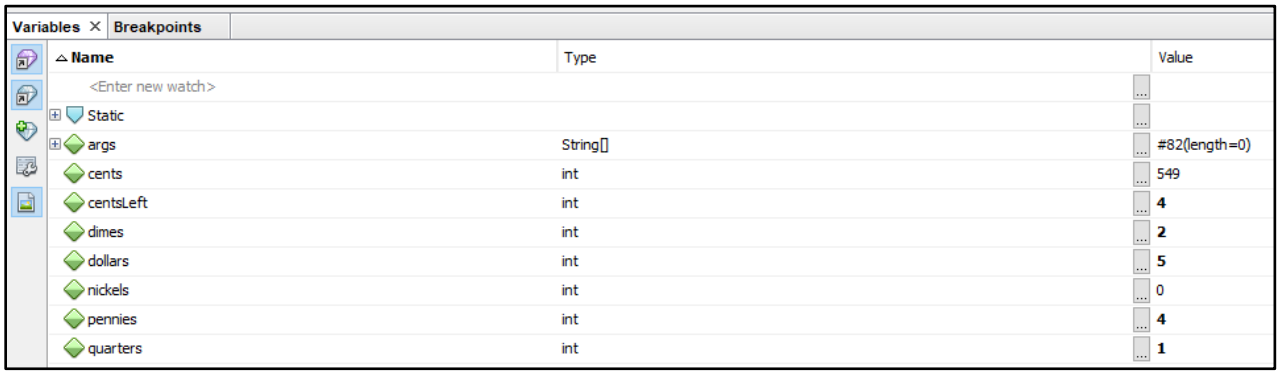


Let's use the step over button  again.



If you would have used the continue button  from the first breakpoint instead of the step over button, then your program would have executed all of the expressions and the variables would be the final results.



To end the debugging, you will click on the finish debugging button  .