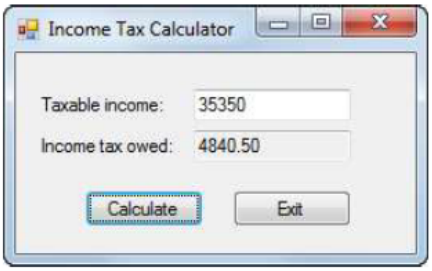
Extra 5-3 Calculate income tax

In this exercise, you'll use nested if statements and arithmetic expressions to calculate the federal income tax that is owed for a taxable income amount entered by the user.



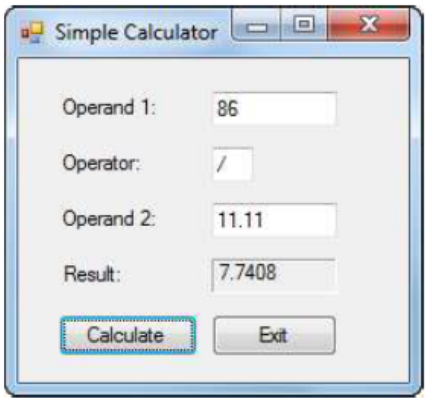
This is the 2015 table for the federal income tax on individuals that you should use for calculating the tax:

Taxable income		Income tax	
Over…	**But not over…**		**Of excess over…**
$0	$9,225	$0 plus 10%	$0
$9,225	$37,450	$922.50 plus 15%	$9,225
$37,450	$90,750	$5,156.25 plus 25%	$37,450
$90,750	$189,300	$18,481.25 plus 28%	$90,750
$189,300	$411,500	$46,075.25 plus 33%	$189,300
$411,500	$413,200	$119,401.25 plus 35%	$411,500
$413,200		$119,996.25 plus 39.6%	$413,200

1. Start a new project named TaxCalculator in the Extra Exercises\Chapter 05\TaxCalculator directory.
2. Add labels, text boxes, and buttons to the default form and set the properties of the form and its controls so they appear as shown above. When the user presses the Enter key, the Click event of the Calculate button should fire. When the user presses the Esc key, the Click event of the Exit button should fire.
3. Create an event handler for the Click event of the Exit button that closes the form.
4. Create an event handler for the Click event of the Calculate button. Then, write the code for calculating and displaying the tax owed for any amount within the first two brackets in the table above. This code should provide for decimal entries, but you can assume that the user will enter valid decimal values. To test this code, use income values of 8700 and 35350, which should display taxable amounts of 870 and 4840.50.
5. Add the code for the next tax bracket. Then, if you have the time, add the code for the remaining tax brackets.

Extra 6-1 Create a simple calculator

In this exercise, you'll create a form that accepts two operands and an operator from the user and then performs the requested operation.



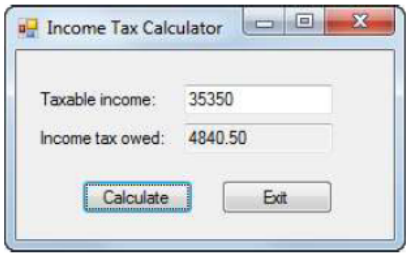
1. Start a new project named SimpleCalculator in the Extra Exercises\Chapter 06\SimpleCalculator directory.
2. Add labels, text boxes, and buttons to the default form and set the properties of the form and its controls so they appear as shown above. When the user presses the Enter key, the Click event of the Calculate button should fire. When the user presses the Esc key, the Click event of the Exit button should fire.
3. Code a private method named Calculate that performs the requested operation and returns a decimal value. This method should accept the following arguments:

Argument	Description
`decimal operand1`	The value entered for the first operand.
`string operator1`	One of these four operators: +, -, *, or /.
`decimal operand2`	The value entered for the second operand.

4. Create an event handler for the Click event of the Calculate button. This event handler should get the two numbers and operand the user enters, call the Calculate method to get the result of the calculation, display the result rounded to four decimal places, and move the focus to the Operand 1 text box.
5. Create an event handler for the Click event of the Exit button that closes the form.
6. Create an event handler that clears the Result text box if the user changes the text in any of the other text boxes.
7. Test the application to be sure it works correctly.

Extra 6-2 Add a method and an event handler to the income tax calculator

In this exercise, you'll add a method and another event handler to the income tax calculator of extra exercise 5-3.



1. Open the TaxCalculator project in the Extra Exercises\Chapter 06\TaxCalculator directory and display the code for the form.
2. Code the declaration for a private method named CalculateTax that receives the income amount and returns the tax amount.
3. Move the if-else statement in the btnCalculate_Click event handler to the CalculateTax method. Then, declare a variable for the tax at the beginning of this method, and return the tax at the end of the method.
4. Modify the statement in the btnCalculate_Click event handler that declares the tax variable so it gets its value by calling the CalculateTax method.
5. Create an event handler that clears the Income Tax Owed text box if the user changes the value in the Taxable Income text box.
6. Test the application to be sure it still works correctly.