**CIS 162 Lab 7**

**1040EZ Tax Form**

**Objectives**

After completing this lab, you should be able to:

* *write* short problem solutions involving conditional statements
* *use* NumberFormat to display currency values

**Definitions**

* *Wages* – amount you earned and reported on a W-2 form
* *Taxable interest* – the amount a bank paid you in interest
* *Unemployment Compensation* – government payments for unemployment insurance
* *Federal income tax withheld* – the amount of tax your employer withheld from your paychecks
* *Exemptions* – the number of people dependent on your income (e.g. 0 if single and your parents claim you as a dependent, 1 if you are single, and 2 if you are married).
* *Deduction* – amount subtracted from your income before taxes are calculated. This is based on the exemptions (e.g. 0 is $6,350, 1 is $10,400 and 2 is $20,800).
* *Adjusted gross income (AGI)* – the total of wages, taxable interest and unemployment
* *Taxable income* – AGI minus deductions (can not be below zero)
* *Tax* – amount of tax is based on the taxable income and rates provided in the tax table depending on filing status (e.g. single or married filing jointly). Use Math.round() to round to the nearest whole number.
* *Amount owed* – if the tax is greater than the tax withheld
* *Refund* – if the tax is less than the tax withheld

**Lab Activity #1 – TaxForm**

Implement a class called TaxForm that calculates the U.S. federal tax given specific information. Include proper documentation including method headers to create elegant code.

* public void estimateTaxes() - Write a method that prompts the taxpayer for certain information and then displays results including adjusted gross income, taxable income, federal tax and refund (or amount due). This simplified form is only for taxpayers who earned less than $100,000 and have no dependents. Read user input using a Scanner.
* Use a NumberFormat object to display currency amounts

NumberFormat fmt = NumberFormat.getCurrencyInstance(Locale.US);

* Use **finals** for tax rates within the method. For example,

final double FIFTEEN\_PCT = 0.15;

**Sample Output**

Your prompts should look similar to the following. Pay attention to blank spaces and new lines. Keyboard input shown in **boldface** for clarity in this document (but not on the screen).

Sample #1

Your Information

Wages, salaries and tips: $**14000**

Taxable interest: $**23**

Unemployment compensation: $**0**

Exemptions (0, 1 or 2): **0**

Federal income tax withheld: $**660**

Your Results

AGI: $14,023.00

Taxable income: $7,673.00

Federal tax: $767.00

Amount due: $107.00

Sample #2

Your Information

Wages, salaries and tips: $**18900**

Taxable interest: $**47**

Unemployment compensation: $**0**

Exemptions (0, 1 or 2): **2**

Federal income tax withheld: $**978**

Your Results

AGI: $18,947.00

Taxable income: $0.00

Federal tax: $0.00

Your refund: $978.00

Sample #3

Your Information

Wages, salaries and tips: $**99999**

Taxable interest: $**0**

Unemployment compensation: $**0**

Exemptions (0, 1 or 2): **1**

Federal income tax withheld: $**15000**

Your Results

AGI: $99,999.00

Taxable income: $89,599.00

Federal tax: $18,139.00

Amount due: $3,139.00

**2017 Federal Tax Table: Filing Single**

|  |  |  |  |
| --- | --- | --- | --- |
| **If your income is:** | | **The tax is:** | |
| Over | But not over |  | of the amount over |
| $0 | $9,325 | 10% | $0 |
| $9,325 | $37,950 | $932.5 + 15% | $9,325 |
| $37,950 | $91,900 | $5,226.25 + 25% | $37,950 |
| $91,900 |  | $18,713.75 + 28% | $91,900 |

For example, to calculate the second row on the table:

if (taxable > 9325 && taxable <= 37950)

tax = Math.round ( (taxable - 9325) \* FIFTEEN\_PCT + 932.5) ;

**2017 Federal Tax Table: Married Filing Jointly**

|  |  |  |  |
| --- | --- | --- | --- |
| **If your income is:** | | **The tax is:** | |
| Over | But not over |  | of the amount over |
| $0 | $18,650 | 10% | $0 |
| $18,650 | $75,900 | $1,865 + 15% | $18,650 |
| $75,900 |  | $10,452.50 + 25% | $75,900 |

**Recommended Sequence of Actions**

1. Ask and answer the five questions
   1. Compile, run and test
2. Calculate AGI
3. Determine amount of deduction based on exemptions **(use a switch statement)**
   1. Compile, run and test
4. Calculate taxable income (adjust if negative)
   1. Compile, run and test
5. Calculate tax for singles (exemption of 0 or 1)
   1. Compile, run and test
6. Calculate federal tax owed (or due)
7. Print all results using NumberFormat
   1. Compile, run and test
8. Go back and calculate tax for married
   1. Compile, run and test
9. Everything working?
   1. Show your instructor
   2. Copy to zyLab for both partners – Chapter 6.

**Grading Criteria**

This lab is worth 10 points including to the associated zyLab points.