

Method Problems 1

1. Modify an earlier program that will determine the cost of admission for a theatre. The price of admission is based on the age of the customer. Your program should prompt the user for their age and then display the correct admission amount.

- Children 6 and under = FREE (\$0.00)
- Students 7 to 17 = \$9.80
- Adults 18 to 54 = \$11.35
- Seniors 55+ = \$10.00

Your program must make use of a method **GetTicketPrice(int age)** that will return the price of the ticket based on the passed in age. It must also use a method **DisplayMenu()** that will display the menu of options to the user.

```
C:\DMIT_New_CPSC1012\Lessons\04_Loops\MethodProblems1-1\bin\Debug\MethodProblems1-1.exe
Select one of the following age groups
Children 6 and under = FREE($0.00)
Students 7 to 17 = $9.80
Adults 18 to 54 = $11.35
Seniors 55+ = $10.00
Enter age: 18
The ticket price is $11.35
```

2. Modify an earlier program that will prompt the user for a student's name and their mark. The program should display the student's name along with a letter grade calculated using the following table:

Mark	Letter Grade
100 - 90	A
89 - 80	B
79 - 70	C
69 - 50	D
49 - 0	F

Your program must make use of a method **LetterGradeFromMark(int mark)** that will return the corresponding letter grade based on the passed in mark.

```
C:\DMIT_New_CPSC1012\Lessons\06_Modules\MethodProblems1-2\bin\Debug\MethodProblems1-2.exe
Enter student's name: Ziggy
Enter student's mark: 45
Ziggy's grade is F

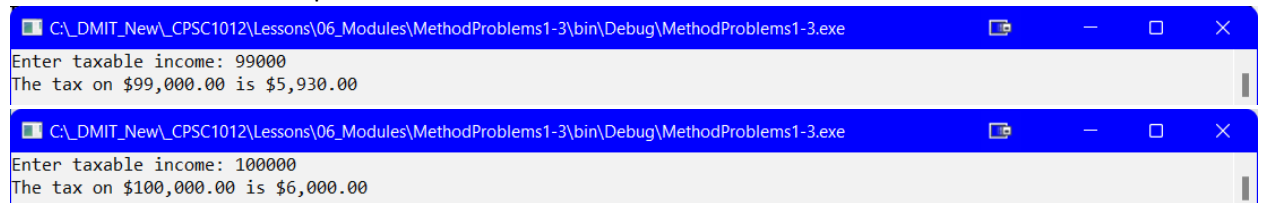
C:\DMIT_New_CPSC1012\Lessons\06_Modules\MethodProblems1-2\bin\Debug\MethodProblems1-2.exe
Enter student's name: Sally
Enter student's mark: 95
Sally's grade is A

C:\DMIT_New_CPSC1012\Lessons\06_Modules\MethodProblems1-2\bin\Debug\MethodProblems1-2.exe
Enter student's name: John
Enter student's mark: 50
John's grade is D
```

3. Modify an earlier program that will compute the income tax due on a taxable income entered by the user. Use the following table to determine the tax owed:

Taxable Income	Tax Due
Up to \$50,000	\$0 + 5% of amount over \$0
Up to \$100,000	\$2,500 + 7% of amount over \$50,000
\$100,000 and over	\$6,000 + 9% of amount over \$100,000

Your program must make use of a method **TaxesOwed(double income)** that will return the taxes owed based on the passed in income.



```
C:\DMIT_New\CPSC1012\Lessons\06_Modules\MethodProblems1-3\bin\Debug\MethodProblems1-3.exe
Enter taxable income: 99000
The tax on $99,000.00 is $5,930.00

C:\DMIT_New\CPSC1012\Lessons\06_Modules\MethodProblems1-3\bin\Debug\MethodProblems1-3.exe
Enter taxable income: 100000
The tax on $100,000.00 is $6,000.00
```