Problem no : 1
Input


```c
#include <stdio.h>
float calculateIncomeBeforeTaxes(float hoursWorked);
float calculateIncomeAfterTaxes(float incomeBeforeTaxes);
float calculateClothesExpenses(float incomeAfterTaxes);
float calculateSchoolExpenses(float incomeAfterTaxes);
float calculateBonds(float incomeAfterTaxes);
float calculateParentsBonds(float savingsBonds);

int main() {
        float hoursWorked;
        printf("Enter the number of hours you worked each week: ");
        scanf("%f", &hoursWorked);

        float incomeBeforeTaxes = calculateIncomeBeforeTaxes(hoursWorked);
        float incomeAfterTaxes = calculateIncomeAfterTaxes(incomeBeforeTaxes);
        float clothesExpenses = calculateClothesExpenses(incomeAfterTaxes);
        float schoolExpenses = calculateSchoolExpenses(incomeAfterTaxes);
        float savingsBonds = calculateBonds(incomeAfterTaxes);
        float parentsBonds = calculateParentsSavingsBonds(savingsBonds);

        printf("income before taxes: $%.2f\n", incomeBeforeTaxes);
        printf("income after taxes: $%.2f\n", incomeAfterTaxes);
        printf("money spent on clothes and accessories: $%.2f\n", clothesExpenses);
        printf("money spent on school supplies: $%.2f\n", schoolExpenses);
        printf("money spent on savings bonds: $%.2f\n", savingsBonds);
        printf("money your parents spent on additional savings bonds for you: $%.2f\n",
parentsBonds);

        return 0;
}
float calculateIncomeBeforeTaxes(float hoursWorked) {
        float pay = 15.50;
        return hoursWorked * pay * 5;
}

float calculateIncomeAfterTaxes(float incomeBeforeTaxes) {
        float tax = 0.14;
        return incomeBeforeTaxes * (1 - tax);
}
```

```c
float calculateClothesExpenses(float incomeAfterTaxes) {
        float clothes = 0.10;
        return incomeAfterTaxes * clothes;
}

float calculateSchoolExpenses(float incomeAfterTaxes) {
        float school = 0.01;
        return incomeAfterTaxes * school;
}

float calculateBonds(float incomeAfterTaxes) {
        float savings = 0.25;
        return incomeAfterTaxes * savings;
}
float calculateParentsBonds(float savingsBonds) {
        float parent = 0.50;
        return savingsBonds * parent;
}
```
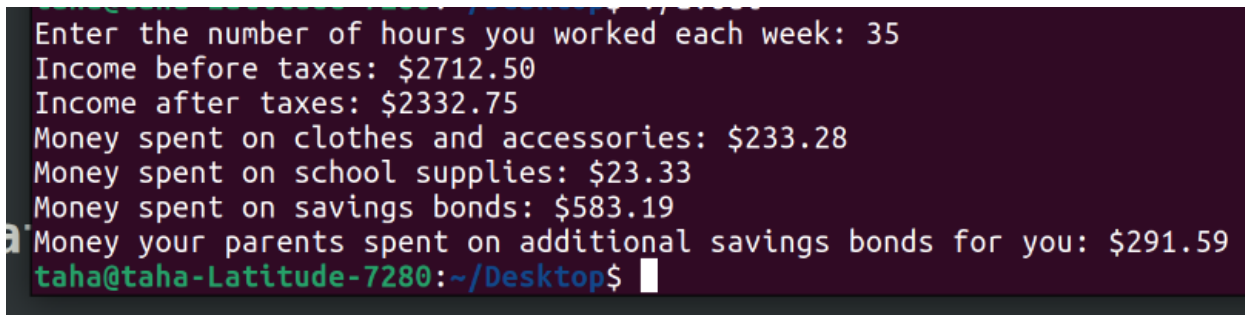
Output


```
Enter the number of hours you worked each week: 35
Income before taxes: $2712.50
Income after taxes: $2332.75
Money spent on clothes and accessories: $233.28
Money spent on school supplies: $23.33
Money spent on savings bonds: $583.19
Money your parents spent on additional savings bonds for you: $291.59
taha@taha-Latitude-7280:~/Desktop$ 
```

Problem no : 2
Input

```c
#include <stdio.h>

float calculateAverageDailyBalance(float netBalance, float payment, int d1, int d2);
float calculateInterest(float averageDailyBalance, float monthlyInterestRate);

int main() {

        float netBalance = 12000;
        float payment = 8000;
        int d1 = 30;
```

```c
        int d2 = 15;
        double monthlyInterestRate = 0.02;


        float averageDailyBalance = calculateAverageDailyBalance(netBalance, payment, d1, d2);


        double interest = calculateInterest(averageDailyBalance, monthlyInterestRate);


        printf("Average Daily Balance: $%f\n", averageDailyBalance);
        printf("Interest: $%f\n", interest);

        return 0;
}
float calculateAverageDailyBalance(float netBalance, float payment, int d1, int d2) {
        return (netBalance * d1 - payment * d2) / d1;
}

float calculateInterest(float averageDailyBalance, float monthlyInterestRate) {
        double interest;

        if (averageDailyBalance > 10000) {
        interest = averageDailyBalance * 1.5 * monthlyInterestRate;
        } else {
        interest = averageDailyBalance * 0.75 * monthlyInterestRate;
        }

        return interest;
}
```
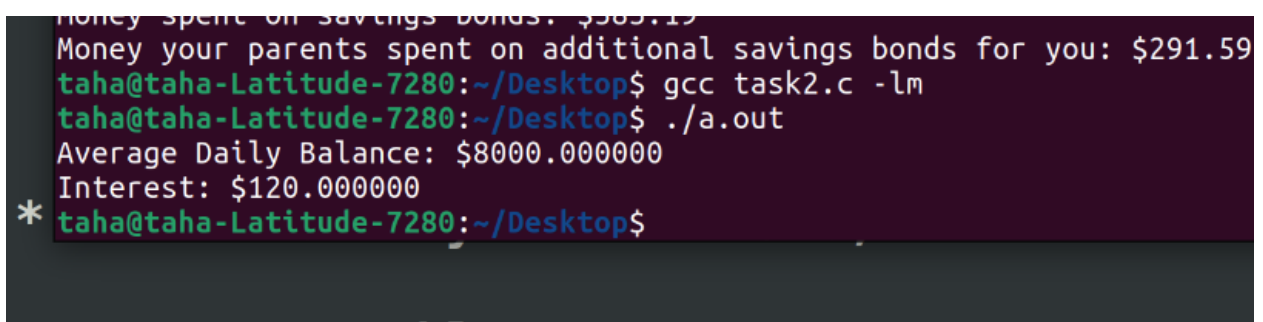
Output

```
Money spent on savings bonds: $383.19
Money your parents spent on additional savings bonds for you: $291.59
taha@taha-Latitude-7280:~/Desktop$ gcc task2.c -lm
taha@taha-Latitude-7280:~/Desktop$ ./a.out
Average Daily Balance: $8000.000000
Interest: $120.000000
taha@taha-Latitude-7280:~/Desktop$
```