

Assume that a financial company has asked you to write an Auto Loan Calculator program. This program must allow user to enter required information and the program will then use the information to calculate monthly payment of an auto loan based on the inputs.

Create the following Java Programs based on the instructions below.

1. Create a Java Program, CarLoan1.java, which prompts the user to enter the following information.
 - a. Vehicle Price
 - b. Trade-in Value
 - c. Down Payment
 - d. Term of Loan (How many months the loan will be paid off)

After the user enters all information, the program will then calculate the total price of vehicle and monthly payment.

Here are formulas to calculate total price and monthly payment.

Total price of vehicle = vehicle price – trade in value – down payment

Monthly payment = total price of vehicle / term of loan

Please display the output as shown in the sample run.

Sample Run:

```
> run CarLoan1
Enter Vehicle Price: 30000.00
Enter Trade-in Value: 8000.00
Enter Down Payment: 2000.00
Enter Term of Loan (Number of Months): 60
Total Vehicle Price: $20000.00
Monthly Payment: $333.33
>
```

2. Create another Java program, CarLoan2.java, which is an exact copy of CarLoan1.java. Then modify the program, CarLoan2.java, so that it performs the following tasks.
- Prompt the user to enter a credit score to define a rate of interest which will be added to the total vehicle price.
Here are interest rates that must be used in the program.

Credit Scores	Interest Rate
500 and below	10%
501 – 700	5%
701 and above	3%

- Create a grand total for the car:
Grand total = total price of vehicle + interest

Display the output by including both interest amount and grand total as show below.

Monthly payment now must be:

Monthly payment = grand total / term of loan.

Sample Run 1:

```
> run CarLoan2
Enter Vehicle Price: 30000.00
Enter Trade-in Value: 8000.00
Enter Down Payment: 2000.00
Enter Term of Loan (Number of Months): 60
Enter Credit Score: 500

Total Vehicle Price: $20000.00
Interest: $2000.00
Grand Total: $22000.00
Monthly Payment: $366.67
>
```

Sample Run 2:

```
> run CarLoan2
Enter Vehicle Price: 30000.00
Enter Trade-in Value: 8000.00
Enter Down Payment: 2000.00
Enter Term of Loan (Number of Months): 60
Enter Credit Score: 600

Total Vehicle Price: $20000.00
Interest: $1000.00
Grand Total: $21000.00
Monthly Payment: $350.00
>
```

Sample Run 3:

> run CarLoan2

Enter Vehicle Price:

Enter Trade-in Value:

Enter Down Payment:

Enter Term of Loan (Number of Months):

Enter Credit Score:

Total Vehicle Price: \$20000.00

Interest: \$600.00

Grand Total: \$20600.00

Monthly Payment: \$343.33

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