

## Assignment 5 – Compute a car payment - 10 points

### Purpose

You want to buy a car and you have saved a little money. You need to know if you can afford the monthly payments. Use the following equation (in a function) to compute the payment.

$$payment = \frac{iP}{1 - (1 + i)^{-n}}$$

where

$P$  = principal (the amount you borrow)

$i$  = monthly interest rate ( $\frac{1}{12}$  of the annual rate)

$n$  = total number of payments

Ask the user for the cost of the car, how much the user has saved, the YEARLY interest rate, and the total number of payments. Compute the principal and the monthly interest rate and pass these and the total number of payments to your function. Your function will return the computed payment. Then print the payment.

Sample Input/Output:

Enter the cost of the car: 15500  
Enter amount you have saved: 500  
Enter yearly interest rate: .045  
Enter total number of payments: 48

Your monthly payment will be \$342.05

### Required Python Comment

Place a Python comment at the top of your submission that is formatted as follows.

```
# -----+
# Your name | <-- e.g. Ashley Bertrand
# CSCI 107, Assignment 5 |
# Last Updated: Month Day, Year | <-- e.g. September 13, 2018
# -----+
# A brief description of the assignment. + <-- can be more than 1 line
```

### Submittal details

- Due Date: Monday, October 14th no later than 11:59 p.m.
- Partner Information: Everyone must complete this assignment individually.
- Submission Instructions: Upload your solution, entitled **YourFirstName-YourLastName-Assignment5.py** to the BrightSpace Assignment 5 Dropbox.
- Deadline Reminder: You will not be able to submit after the due date/time.

### Grading Rubric

- 1 point – Comment at top of source file
- 3 point - Use of function
- 3 points – Data entered correctly
- 3 points – The payment is computed and output correctly