

1. Write a PHP function “array_product” that takes an array of numbers as its input argument and returns the product of all the elements in the array. You have to implement this function three times with the following settings:
 - a. Using **for** loop with a counter
 - b. Using **foreach** loop
 - c. Using **recursion**
2. Write a PHP function “array_foreach” that takes an array of numbers and a variable function as its input argument. Variable function would perform a numerical operation on two given numbers (as input arguments) and return the result. This operation can be addition, subtraction, multiplication, etc. Your function should perform this operation on all the elements of the input array and return the result.
Hint: The idea behind the question is to implement a function that performs a given operation on all of the elements of an array regardless of the operation itself (Abstraction).

3. Most banks calculate the interest on loans based on the customer’s balance at the end of each day. That is if a customer has a loan of \$5000 with an annual interest rate of 19.99%, considering the following remaining balance for a week the interest on this money is calculated as follow:
Balance = array(5000, 4800, 4000, 5000, 4500, 5000, 5000);
 $interest = (5000 + 4800 + 4000 + 5000 + 4500 + 5000 + 5000) \times 0.1999 \div 365$

Write a PHP function that receives the remaining balance of a customer for any period of time and the annual interest rate as its input arguments and calculates the interest to be paid in that period of time.

4. Create a HTML form that takes the remaining balance of a user for each day of the week and the annual interest rate and calculates the interest to be paid for the week. Use your function from previous question to calculate the result. Note that you have to open a new PHP page after the submission of form and perform the calculations there and show the result on that page.
Hint: Use `$_POST` to read the data from the form in the new page.