Question 1: Find average of given numbers.

Answer 1:

```php
<?php
$arr = array();
array_push($arr,2,1,-1,2,3,4,2,10);
$sum = 0;
foreach($arr as $val) $sum += $val;
$avg = $sum/count($arr);
echo "The given numbers in array:- ";
foreach($arr as $val) echo "   ".$val;
echo "<br>The average of these numbers is ".$avg.".";
?>
```

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The given numbers in array:- 2 1 -1 2 3 4 2 10
The average of these numbers is 2.875.

Question 2: Armstrong numbers between 1 and 500.

Answer 2:

```php
<?php
echo "Following are the Armstrong numbers between 1 and 500 :- <br>";
for ($x = 1; $x <= 500; $x+=1) {
    $temp = $x;
    $val = 0;
    while($temp!=0){
        $rem = $temp%10;
        $val += $rem*$rem*$rem;
        $temp = $temp/10;
    }
    if($val==$x){
        echo $x."<br>";
    }
}
```

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Following are the Armstrong numbers between 1 and 500 :-
1
153
370
371
407

Question 3: To print the largest and smallest number in the array.

Answer:

```php
<?php
$arr = array();
array_push($arr,2,1,-1,2,3,4,2,10);
echo "The given numbers in array:- ";
foreach($arr as $val) echo "   ".$val;
echo "<br>";
echo "Minimum element in the Array:- ".min($arr)."<br>";
echo "Maximum element in the Array:- ".max($arr)."<br>";
?>
```

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The given numbers in array:- 2 1 -1 2 3 4 2 10
Minimum element in the Array:- -1
Maximum element in the Array:- 10

Question 4: To find exponential without using power.
Answer:

```php
<?php
    if(!isset($_GET["val"]) || !isset($_GET["power"])){
        echo "Please enter values for val and power!<br>";
        return;
    }
    $x = $_GET["val"];
    $y = $_GET["power"];
    if($y<=0){
        echo "Please enter a positive power value. Value given:- ".$y."<br>";
        return;
    }
    $ans = 1;
    $i = 0;
    while($i<$y){
        $ans *= $x;
        $i++;
    }
    echo $x." ^ ".$y." = ".$ans."<br>";
?>
```

← → C ⌂ ⓘ localhost:3000/avg.php?val=5&power=2

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5 ^ 2 = 25

Question 5: Factorial of a number.

Answer:

```php
<?php
    if(!isset($_GET["num"])){
        echo "Please enter value for num!<br>";
        return;
    }
    $num = $_GET["num"];
    $ans = 1;
    for($i=1;$i<=$num;$i++){
        $ans *= $i;
    }
    echo "Factorial of given number ".$num.":- ".$ans.".<br>";
    return;
?>
```

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Factorial of given number 6:- 720.

Question 6:

```php
<?php
    function isPrime($n){
        for($x=2; $x<$n; $x++){
            if($n%$x ==0) return 0;
        }
        return 1;
    }
    if(!isset($_GET["num"])){
        echo "Please enter value for num!<br>";
        return;
    }
    $num = $_GET["num"];
    if($num<=0){
        echo "Pleae enter a valid value!<br>";
        return;
    }
    $i=2;
    $cnt = 0;
    while($cnt<$num){
        if(isPrime($i)){
            echo $i."<br>";
            $cnt++;
        }
        $i++;
    }
    return;
?>
```
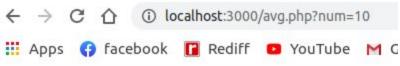
← → C ⌂   ⓘ localhost:3000/avg.php?num=6

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2
3
5
7
11
13

Question 7: To print the fibonacci series.

Answer 7:

```php
<?php
    function isPrime($n){
        for($x=2; $x<$n; $x++){
            if($n%$x ==0) return 0;
        }
        return 1;
    }
    if(!isset($_GET["num"])){
        echo "Please enter value for num!<br>";
        return;
    }
    $num = $_GET["num"];
    if($num<=0){
        echo "Pleae enter a valid value!<br>";
        return;
    }
    echo "Fibonacci Series:- ";
    $a = 0;
    $b = 1;
    if($num==1){
        echo " ".$a;
        return;
    }
    if($num==2){
        echo " ".$a." ".$b;
        return;
    }
    for($i=0;$i<$num;$i++){
        echo " ".$a;
        $temp = $b;
        $b += $a;
        $a = $temp;
    }
    return;
```
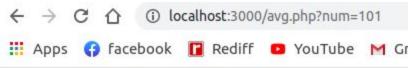
← → C ⌂ ⓘ localhost:3000/avg.php?num=10

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Fibonacci Series:- 0 1 1 2 3 5 8 13 21 34

Question 8: To check whether the number is a palindrome or not.

Answer:

```php
<?php
    if(!isset($_GET["num"])){
        echo "Please enter value for num!<br>";
        return;
    }
    $num = $_GET["num"];
    if($num<=0){
        echo "Pleae enter a valid value!<br>";
        return;
    }
    $val = 0;
    $temp = (int)$num;
    while($temp>=1){
        $rem = $temp%10;
        $val = $val*10 + $rem;
        $temp = (int)$temp/10;
    }
    if($val==$num){
        echo "The given number ".$val." is a palindrome!<br>";
        return;
    }
    echo "The given number ".$num." is not a palindrome!<br>";
    return;
?>
```
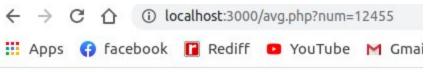
← → C ⌂ ⓘ localhost:3000/avg.php?num=101

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The given number 101 is a palindrome!

Question 9: To reverse a given number.

Answer:

```php
<?php
    if(!isset($_GET["num"])){
        echo "Please enter value for num!<br>";
        return;
    }
    $num = $_GET["num"];
    if($num<=0){
        echo "Pleae enter a valid value!<br>";
        return;
    }
    $val = 0;
    $temp = (int)$num;
    while($temp>=1){
        $rem = $temp%10;
        $val = $val*10 + $rem;
        $temp = (int)$temp/10;
    }
    echo "Given Number:- ".$num."<br>Reversed Number:- ".$val."<br>";
    return;
?>
```

← → C ⌂ ⓘ localhost:3000/avg.php?num=12455

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Given Number:- 12455
Reversed Number:- 55421

Question 10: To print the number triangle.

Answer:

```php
<?php
    if(!isset($_GET["num"])){
        echo "Please enter value for num!<br>";
        return;
    }
    $num = $_GET["num"];
    if($num<=0){
        echo "Pleae enter a valid value!<br>";
        return;
    }
    echo "The Number Triangle is as follows:- <br>";
    $i = 1;
    while($i<=$num){
        for($j = 0;$j<$num-$i;$j++) echo "  ";
        for($j=1;$j<=$i;$j++) echo $j;
        for($j=$i-1;$j>=1;$j--) echo $j;
        echo "<br>";
        $i++;
    }
    return;
?>
```

← → C ⌂ ⓘ localhost:3000/avg.php?num=6

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The Number Triangle is as follows:-
```
      1
     121
    12321
   1234321
  123454321
 12345654321
```