

1. Create a script that displays 1-2-3-4-5-6-7-8-9-10 on one line. There will be no hyphen(-) at starting and ending position

### Solution

```
<?php
for($x=1; $x<=10; $x++)
{
    if($x< 10)
    {
        echo "$x-";
    }
    else
    {
        echo "$x"."\\n";
    }
}
?>
```

2. Create a script using a for loop to add all the integers between 0 and 30 and display the sum.

### Solution

```
<?php
$sum = 0;
for($x=1; $x<=30; $x++)
{
    $sum += $x;
}
echo "The sum of the numbers 0 to 30 is $sum"."\\n";
?>
```

3. Create a script to construct the following pattern, using nested for loop.

```
*
* *
* * *
* * * *
* * * * *
```

### Solution

```

<?php
for($x=1;$x<=5;$x++)
{
    for ($y=1;$y<=$x;$y++)
    {
        echo "*";
        if($y< $x)
        {
            echo " ";
        }
    }
    echo "\n";
}
?>

```

4. Create a script to construct the following pattern, using a nested for loop.

```

*
* *
* * *
* * * *
* * * * *
* * * * *
* * * *
* * *
* *
*

```

### Solution

```

<?php
$n=5;
for($i=1; $i<=$n; $i++)
{
    for($j=1; $j<=$i; $j++)
    {
        echo ' * ';
    }
    echo '\n';
}
for($i=$n; $i>=1; $i--)
{

```

```

for($j=1; $j<=$i; $j++)
{
    echo ' * ';
}
echo '\n ';
}
?>

```

**5.** Write a program to calculate and print the factorial of a number using a for loop. The factorial of a number is the product of all integers up to and including that number, so the factorial of 4 is  $4*3*2*1=24$

#### **Solution**

```

<?php
$n = 6;
$x = 1;
for($i=1;$i<=$n-1;$i++)
{
    $x*=( $i+1);
}
echo "The factorial of $n = $x"."\\n";
?>

```

**6.** Write a program which will give you all of the potential combinations of a two-digit decimal combination, printed in a comma delimited format

Sample output :

```

00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20,
21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41,
42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62,
63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83,
84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99,

```

#### **Solution**

```

<?php
for($a=0; $a< 10; $a++)
{

```

```

for($b=0; $b< 10; $b++)
{
    echo $a.$b.", ";
}
}
printf("\n");
?>

```

7. Write a program which will count the "e" characters in the text "I am learning PHP code".

### Solution

```

<?php
$text="w3resource";
$search_char="e ";
$count="0";
for($x="0"; $x< strlen($text); $x++)
{
    if(substr($text,$x,1)==$search_char)
    {
        $count=$count+1;
    }
}
echo $count."\n";
?>

```

8. Write a PHP script that creates the following table using for loops. Add cellpadding="3px" and cellspacing="0px" to the table tag.

1 * 1 = 1	1 * 2 = 2	1 * 3 = 3	1 * 4 = 4	1 * 5 = 5
2 * 1 = 2	2 * 2 = 4	2 * 3 = 6	2 * 4 = 8	2 * 5 = 10
3 * 1 = 3	3 * 2 = 6	3 * 3 = 9	3 * 4 = 12	3 * 5 = 15
4 * 1 = 4	4 * 2 = 8	4 * 3 = 12	4 * 4 = 16	4 * 5 = 20
5 * 1 = 5	5 * 2 = 10	5 * 3 = 15	5 * 4 = 20	5 * 5 = 25
6 * 1 = 6	6 * 2 = 12	6 * 3 = 18	6 * 4 = 24	6 * 5 = 30

### Solution

```

<!DOCTYPE html>
<html>
<body>
<table align="left" border="1" cellpadding="3" cellspacing="0">

```

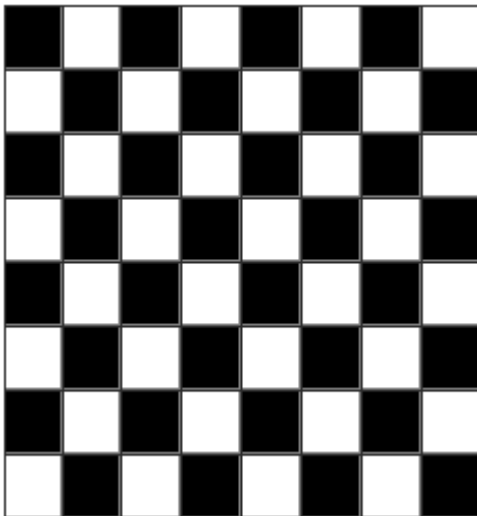
```

<?php
for($i=1;$i<=6;$i++)
{
echo "<tr>";
for ($j=1;$j<=5;$j++)
{
echo "<td>$i * $j = ".$i*$j."</td>";
}
echo "</tr>";
}
?>
</table>
</body>
</html>

```

9. Write a PHP script using nested for loop that creates a chess board as shown below.

Use table width="270px" and take 30px as cell height and width.



### Solution

```

<!DOCTYPE html>
<html>
<head>
<title></title>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
</head>
<body>

```

### <h3>Chess Board using Nested For Loop</h3>

```
<table width="270px" cellspacing="0px" cellpadding="0px" border="1px">
<!-- cell 270px wide (8 columns x 60px) -->
<?php
for($row=1;$row<=8;$row++)
{
    echo "<tr>";
    for($col=1;$col<=8;$col++)
    {
        $total=$row+$col;
        if($total%2==0)
        {
            echo "<td height=30px width=30px bgcolor=#FFFFFF></td>";
        }
        else
        {
            echo "<td height=30px width=30px bgcolor=#000000></td>";
        }
    }
    echo "</tr>";
}
?>
</table>
</body>
</html>
```

**10.** Write a PHP script that creates the following table (use for loops).

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

**Solution**

```

<?php
echo "<table border =\"1\" style='border-collapse: collapse'>";
    for ($row=1; $row <= 10; $row++) {
        echo "<tr> \n";
        for ($col=1; $col <= 10; $col++) {
            $p = $col * $row;
            echo "<td>$p</td> \n";
        }
        echo "</tr>";
    }
    echo "</table>";
?>

```

11. Write a PHP program which iterates the integers from 1 to 50. For multiples of three print "Fizz" instead of the number and for the multiples of five print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz".

### Solution

```

<?php
for ($i = 1; $i <= 100; $i++)
{
    if ( $i%3 == 0 && $i%5 == 0 )
    {
        echo $i . " FizzBuzz" . "\n" ;
    }
    else if ( $i%3 == 0 )
    {
        echo $i. " Fizz" . "\n";
    }
    else if ( $i%5 == 0 )
    {
        echo $i. " Buzz" . "\n";
    }
    else
    {
        echo $i. "\n";
    }
}

```

```
}  
?>
```

12. According to Wikipedia Floyd's triangle is a right-angled triangular array of natural numbers, used in computer science education. It is named after Robert Floyd. It is defined by filling the rows of the triangle with consecutive numbers, starting with a 1 in the top left corner:

*Sample output for n = 5 :*

```
1  
2 3  
4 5 6  
7 8 9 10  
11 12 13 14 15
```

### **Solution**

```
<?php  
$n = 5;  
echo "n = " . $n . "\n";  
$count = 1;  
for ($i = $n; $i > 0; $i--)  
{  
    for ($j = $i; $j < $n + 1; $j++)  
    {  
        printf("%4s", $count);  
        $count++;  
    }  
    echo "\n";  
}  
?>
```

13. Write a PHP program to print alphabet pattern 'E'.

*Expected Output:*



```
*****
*
*
****
*
*
*****
```

### Solution

```
<?php
for ($row=0; $row<7; $row++)
{
    for ($column=0; $column<=7; $column++)
    {
        if ($column == 1 or (($row == 0 or $row == 6) and ($column > 1 and $column
< 6)) or ($row == 3 and $column > 1 and $column < 5))
            echo "*";
        else
            echo " ";
    }
    echo "\n";
}
?>
```

14. Write a PHP program to print alphabet pattern 'I'. [Go to the editor](#)

*Expected Output:*

```
*****
*
*
*
*
*
*****
```

### Solution

```
<?php
```

```

for ($row=0; $row<7; $row++)
{
    for ($column=0; $column<=7; $column++)
    {
        if ($column == 3 or ($row == 0 and $column > 0 and $column < 6) or ($row ==
6 and $column > 0 and $column < 6))
            echo "*";
        else
            echo " ";
    }
    echo "\n";
}
?>

```

15. Write a PHP program to print alphabet pattern 'L'. [Go to the editor](#)

*Expected Output:*

```

*
*
*
*
*
*
*****

```

### **Solution**

```

<?php
for ($row=0; $row<7; $row++)
{
    for ($column=0; $column<=7; $column++)
    {
        if ($column == 1 or ($row == 6 and $column != 0 and $column < 6))
            echo "*";
        else
            echo " ";
    }
    echo "\n";
}
?>

```