1. Check a number whether it is even or odd.

Code:

```php
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <form  method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
        <input type="number" name="number">
        <input type="submit" value="Submit">
    </form>
</body>
<?php
    if ($_SERVER["REQUEST_METHOD"] == "POST")
    {
        $number = $_POST["number"];
        if ($number % 2 == 0)
        {
            echo "$number is a Even number";
        }
        else
        {
            echo "$number is a Odd number";
        }
    }
?>
</html>
```

Output:

[   ] Submit

5 is a Odd number

2. Check a year whether it is a leap year or not.

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <form  method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
        <input type="year" name="year">
        <input type="submit" value="Submit">
    </form>
</body>
<?php
    if ($_SERVER["REQUEST_METHOD"] == "POST")
    {

        $year = $_POST["year"];
        if (($year % 400 == 0) and ($year % 100 ==
0))  {
            echo "$year Leap Year";
        }
        else if (($year % 4 ==0) and ($year % 100 !=
0))
        {
            echo "$year Not a Leap Year";
        }
        else
        {
            echo "$year Not a Leap Year";
        }
    }
```

```
?>
</html>
```

Output:

2000 Leap Year

3. Print multiplication table of a number.

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <form  method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
        <input type="number" name="number">
        <input type="submit" value="Submit">
    </form>
</body>
<?php
    if ($_SERVER["REQUEST_METHOD"] == "POST")
    {

        $number = $_POST["number"];
        for($i=1;$i<=10;$i++)
        {
            echo $number." * ".$i." =
".$number*$i."<br>";
```

```
            }
        }
?>
</html>
```

Output:

	Submit

2 * 1 = 2
2 * 2 = 4
2 * 3 = 6
2 * 4 = 8
2 * 5 = 10
2 * 6 = 12
2 * 7 = 14
2 * 8 = 16
2 * 9 = 18
2 * 10 = 20

4. Print the Patterns below:

a)
*
* *
* * *
* * * *
* * * * *

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <?php
```

```php
        for($i=1;$i<=5;$i++)
        {
            for($j=1;$j<=$i;$j++)
            {
                echo "* ";
            }
            echo "<br>";
        }
    ?>


</body>
</html>
```

Output:

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

b)

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

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <?php
        for($i=1;$i<=5;$i++)
```

```php
        {
            for($j=1;$j<=5-$i;$j++)
            {
                echo "  ";
            }
            for($k=1;$k<=$i;$k++)
            {
                echo "*  ";
            }
            echo "<br>";
        }
    ?>

</body>
</html>
```

Output:

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

c)
```
* * * * *
 * * * *
  * * *
  * * *
   * *
    *
```

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
```

```php
<body>
    <?php
        for($i=1;$i<=6;$i++)
        {
            for($j=1;$j<=$i;$j++)
            {
                echo "  ";
            }
            for($k=1;$k<=6-$i;$k++)
            {
                echo "*  ";
            }
            echo "<br>";
        }

    ?>

</body>
</html>
```

Output:

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

d)

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

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <?php
        for($i=1;$i<=5;$i++)
        {
            for($j=1;$j<=5-$i;$j++)
            {
                echo "  ";
            }
            for($k=1;$k<=$i;$k++)
            {
                echo "*  ";
            }
            echo "<br>";
        }
        for($i=1;$i<=5;$i++)
        {
            for($j=1;$j<=$i;$j++)
            {
                echo "  ";
            }
            for($k=1;$k<=5-$i;$k++)
            {
                echo "*  ";
            }
            echo "<br>";
        }
    ?>
```

```
</body>
</html>
```

Output:

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

5. WAP to calculate the sum of the digits of a number.

```php
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <form  method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
        <input type="number" name="number">
        <input type="submit" value="Submit">
    </form>
</body>
<?php
    if ($_SERVER["REQUEST_METHOD"] == "POST")
```

```
    {
        $number = $_POST["number"];
        $store=$number;
        $sum = 0;
        while($number>0)
        {
            $sum = $sum + $number%10;
            $number = $number/10;
        }
        // echo "Sum of digit $number is $sum";
        echo "Sum of digit $store is $sum";
    }
?>
</html>
```

Output:

Sum of digit 123 is 6

6. WAP to check if a number is Palindrome or not.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <form  method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
        <input type="text" name="number">
```

```
            <input type="submit" value="Submit">
    </form>
</body>
<?php
    if ($_SERVER["REQUEST_METHOD"] == "POST")
    {
        $number = $_POST["number"];

        if (strrev($number) == $number)
        {
            echo "$number  is Palindrome";
        }
        else
        {
            echo "$number  is not Palindrome";
        }
    }

?>
</html>
```

Output:

121 is Palindrome

7. Write PHP code to print Grade card of Student using Switch case.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
```

```php
    <title>Document</title>
</head>
<body>
    <form  method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
        <input type="number" name="marks">
        <input type="submit" value="Submit">
    </form>
    <?php
        if ($_SERVER["REQUEST_METHOD"] == "POST")
        {

            $marks = $_POST["marks"];
            echo "Marks:  $marks <br>";
            switch ($marks)
            {
                case ($marks >= 90):
                    echo "Grade A";
                    break;
                case ($marks >= 80):
                    echo "Grade B";
                    break;
                case ($marks >= 70):
                    echo "Grade C";
                    break;
                case ($marks >= 60):
                    echo "Grade D";
                    break;
                case ($marks >= 50):
                    echo "Grade E";
                    break;
                case ($marks >= 40):
                    echo "Grade F";
                    break;
```

```
                default:
                    echo "Grade G";
            }
        }


    ?>
</body>
</html>
```

Output:

Marks: 90
Grade A

8. Write PHP code to print rainbow colours within an array using for_each loop.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <h2> Rainbow Colors </h2>
    <?php
        $colors = array("red", "orange", "yellow",
"green", "blue", "indigo", "violet");
        foreach($colors as $color){
            echo $color . "<br>";
        }
```

```
    ?>
</body>
</html>
```

Output:

Rainbow Colors

red
orange
yellow
green
blue
indigo
violet

9. Write PHP code to print Fibonacci series.

Code:

```php
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <form  method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
        <input type="number" name="num">
        <input type="submit" value="Submit">
    </form>
    <?php
        if ($_SERVER["REQUEST_METHOD"] == "POST")
        {
```

```php
            $num = $_POST["num"];
            $a = 0;
            $b = 1;
            $c = 0;
            echo "Fibonacci Series of $num : <br>";
            echo $a . "<br>";
            echo $b . "<br>";
            for($i = 2; $i < $num; $i++){
                $c = $a + $b;
                echo $c . "<br>";
                $a = $b;
                $b = $c;
            }
        }
    ?>

</body>
</html>
```

Output:

Fibonacci Series of 5 :
0
1
1
2
3

10. Write PHP code to check that an user is eligible to vote or not.

Code:

```php
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <form  method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
        <input type="number" name="age">
        <input type="submit" value="Submit">
    </form>
    <?php
        if ($_SERVER["REQUEST_METHOD"] == "POST")
        {

            $age = $_POST["age"];
            if($age >= 18){
                echo "Your age is $age and you are
eligible to vote.";
            }
            else{
                echo "Your age is $age and you are
not eligible to vote.";
            }
        }
    ?>

</body>
</html>
```

Output:

Your age is 17 and you are not eligible to vote.

11. Write PHP code to calculate Largest among three numbers using a) If_else b) conditional operator.

Code:

```php
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
   <form action="14.php" method="post">
        <input type="number" name="num1"
placeholder="Enter first number">
        <input type="number" name="num2"
placeholder="Enter second number">
        <input type="number" name="num3"
placeholder="Enter third number">
        <input type="submit" name="submit">
   </form>
   <?php
       if(isset($_POST['submit'])){
           $num1 = $_POST['num1'];
           $num2 = $_POST['num2'];
           $num3 = $_POST['num3'];
           echo "num1 = $num1, num2 = $num2, num3 =
$num3 <br>";
```

```php
            if($num1 > $num2 && $num1 > $num3){
                echo "The largest number is: " .
$num1;
            }elseif($num2 > $num1 && $num2 > $num3){
                echo "The largest number is: " .
$num2;
            }else{
                echo "The largest number is: " .
$num3;
            }
        }
    ?>


</body>
</html>
```

Output:

| Enter first number ⇕ | Enter second numbe ⇕ | Enter third number ⇕ | Submit Query |

num1 = 10, num2 = 20, num3 = 30
The largest number is: 30

12. Write PHP code to design a calculator program to show use of +,-,* ,/ operators.

Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
```

```php
</head>
<body>
    <form method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
        <input type="number" name="num1">
        <input type="number" name="num2">
        <select name="operator">
            <option value="add">Add</option>
            <option value="sub">Subtract</option>
            <option value="mul">Multiply</option>
            <option value="div">Divide</option>
        </select>
        <input type="submit" value="Submit">
    </form>
    <?php
        if ($_SERVER["REQUEST_METHOD"] == "POST")
        {
            $num1 = $_POST["num1"];
            $num2 = $_POST["num2"];
            $operator = $_POST["operator"];
            echo "num1 = $num1, num2 = $num2,
operator = $operator <br>";
            switch($operator){
                case "add":
                    echo "The sum of $num1 and $num2
is: " . ($num1 + $num2);
                    break;
                case "sub":
                    echo "The difference of $num1 and
$num2 is: " . ($num1 - $num2);
                    break;
                case "mul":
                    echo "The product of $num1 and
$num2 is: " . ($num1 * $num2);
```

```
                    break;
                case "div":
                    echo "The quotient of $num1 and
$num2 is: " . ($num1 / $num2);
                    break;
                default:
                    echo "Invalid operator";
            }
        }


    ?>
</body>
</html>
```

Output:

| | | Add ∨ | Submit |

num1 = 10, num2 = 20, operator = add
The sum of 10 and 20 is: 30

13. Write a PHP code to calculate area and perimeter of Triangle.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
```

```php
    <form method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
    side1:<input type="number" name="side1" >
    side2: <input type="number" name="side2">
    side3: <input type="number" name="side3">

    <input type="submit" value="Submit">
    </form>
    <?php
        if ($_SERVER["REQUEST_METHOD"] == "POST")
        {
            $side1 = $_POST["side1"];
            $side2 = $_POST["side2"];
            $side3 = $_POST["side3"];
            echo " side1 = $side1, side2 = $side2,
side3 = $side3 <br>";

            $perimeter = $side1 + $side2 + $side3;
            $s = $perimeter / 2;
            $area =
($s*($s-$side1)*($s-$side2)*($s-$side3)) ** 0.5;
            echo "The area of the triangle is: $area
<br>";
            echo "The perimeter of the triangle is:
$perimeter <br>";
        }
    ?>

</body>
</html>
```

Output:

side1: [_____] side2: [_____] side3: [_____] [Submit]
side1 = 10, side2 = 10, side3 = 10
The area of the triangle is: 43.301270189222
The perimeter of the triangle is: 30

14. Write a PHP code to calculate the area and perimeter of the rectangle.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <form method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
    height:<input type="number" name="height" >
    width: <input type="number" name="width">
    <input type="submit" value="Submit">
    </form>
    <?php
        if ($_SERVER["REQUEST_METHOD"] == "POST")
        {
            $height = $_POST["height"];
            $width = $_POST["width"];
            echo " height = $height, width = $width
<br>";

            $perimeter = 2 * ($height + $width);
            $area = $height * $width;
            echo "The area of the rectangle is: $area
<br>";
```

```
            echo "The perimeter of the rectangle is:
$perimeter <br>";
        }
    ?>



</body>
</html>
```

Output:

height: [⬍] width: [⬍] [Submit]
height = 2, width = 2
The area of the rectangle is: 4
The perimeter of the rectangle is: 8

15. Write a PHP code to calculate area and perimeter of circle.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <form method="post" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>">
    radius:<input type="number" name="radius" >
    <input type="submit" value="Submit">
    </form>
    <?php
        if ($_SERVER["REQUEST_METHOD"] == "POST")
```

```php
        {
            $radius = $_POST["radius"];
            echo " radius = $radius <br>";

            $perimeter = 2 * pi() * $radius;
            $area = pi() * $radius ** 2;
            echo "The area of the circle is: $area
<br>";
            echo "The perimeter of the circle is:
$perimeter <br>";
        }
    ?>

</body>
</html>
```

Output:

radius: [   ] ⇕ | Submit |
radius = 5
The area of the circle is: 78.539816339745
The perimeter of the circle is: 31.415926535898