

## 1. Prime Number:

```
<?php

function isPrime($num) {

    if ($num < 2) {

        return false;

    }

    for ($i = 2; $i <= sqrt($num); $i++) {

        if ($num % $i == 0) {

            return false;

        }

    }

    return true;

}

$number = 17; // Change this to the desired number

if (isPrime($number)) {

    echo "$number is a prime number.";

} else {

    echo "$number is not a prime number.";

}

?>
```

### Output –

17 is a prime number.

## 2. Factorial:

```
<?php

function factorial($n) {

    if ($n == 0 || $n == 1) {

        return 1;

    } else {

        return $n * factorial($n - 1);

    }

}

$number = 5; // Change this to the desired number

echo "Factorial of $number is: " . factorial($number);

?>
```

### Output –

Factorial of 5 is: 120

## 3. Number Triangle:

```
<?php

$rows = 5; // Change this to the desired number of rows

for ($i = 1; $i <= $rows; $i++) {

    for ($j = 1; $j <= $i; $j++) {

        echo $j . " ";

    }

    echo "<br>";

}

?>
```

## Output –

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

## 4. Grade Display:

```
<?php

$marks = 75; // Change this to the actual marks obtained

if ($marks >= 70) {

    echo "Distinction";

} elseif ($marks >= 60) {

    echo "First Class";

} elseif ($marks >= 40) {

    echo "Pass";

} else {

    echo "Fail";

}

?>
```

## Output –

Distinction

## 5. String Functions:

```
<?php

$string = "Hello, World!";

// Example string functions

echo "Length of the string: " . strlen($string) . "<br>";

echo "Uppercase: " . strtoupper($string) . "<br>";

echo "Lowercase: " . strtolower($string) . "<br>";

echo "Substring: " . substr($string, 0, 5) . "<br>";

echo "Position of 'World': " . strpos($string, "World") . "<br>";

?>
```

### Output –

Length of the string: 13  
Uppercase: HELLO, WORLD!  
Lowercase: hello, world!  
Substring: Hello  
Position of 'World': 7

## 6. OOP in PHP:

```
<?php

class Animal {

    public $name;

    public $sound;

    public function __construct($name, $sound) {
```

```
$this->name = $name;

$this->sound = $sound;

}

public function makeSound() {

    echo "{$this->name} says {$this->sound} <br>";

}

}

$cat = new Animal("Cat", "Meow");

$dog = new Animal("Dog", "Woof");

$cat->makeSound();

$dog->makeSound();

?>
```

## Output –

Cat says Meow

Dog says Woof