1. Prime Number:

```php
<?php
function isPrime($num) {
    if ($num < 2) {
        return false;
    }
    for ($i = 2; $i <= sqrt($num); $i++) {
        if ($num % $i == 0) {
            return false;
        }
    }
    return true;
}
$number = 17;
if (isPrime($number)) {
    echo "$number is a prime number.";
} else {
    echo "$number is not a prime number.";
}
?>
```

Output –

17 is a prime number.

2. Factorial:

```php
<?php
function factorial($n) {
    if ($n == 0 || $n == 1) {
        return 1;
    } else {
        return $n * factorial($n - 1);
    }
}
$number = 5;
echo "Factorial of $number is: " . factorial($number);
?>
```

Output –

Factorial of 5 is: 120

3. Number Triangle:

```php
<?php
$rows = 5;
for ($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
<?php
$phy = 90;
$chem = 80;
$math = 90;
$total = $phy + $chem + $math;
$per = $total / 3;
echo "Physics Marks Is $phy <br>";
echo "Chemistry Marks Is $chem <br>";
echo "Maths Marks Is $math <br>";
echo "Total Is $total Percentage Is $per <br>";

if ($per >= 70) {
    echo "Congratulation";
    echo "<br> You Get Distinction";
} elseif ($per >= 60) {
    echo "First Class";
} elseif ($per >= 40) {
    echo "Pass Class";
} else {
    echo "You Are Failed";
}
?>
```

Output –

Congratulations

You Get Distinction

5. String Functions:

```php
<?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
<?php
class Books
{
    public  function name()
    {
        echo " Book Name : - Propal Book <br>";
    }
    public  function price()
    {
        echo "Price : - 90.Rs";
    }
}
$obj = new Books();
$obj->name();
$obj->price();
?>                    Output → Book Name:- Propal Book
```

7. Get And Post Method:

```
                        (Index.php)
<html>

<head>
    <title>Login Form</title>
</head>

<body>
    <form action="login2.php" method="post">
        Login :<br>
        Name :
        <input type="text" name="uname"> <br><br>
        Password :
        <input type="password" name="pwd"> <br><br>
        <input type="submit" name="btsubmit" value="Submit">
    </form>
</body>

</html>
```

```
                        Login2.php
```

```
<html>
<head>
    <title>Login Form</title>
</head>

<body>
    <?php
    session_start();
    if (isset($_POST['btsubmit'])) {
        $Name = $_POST['uname'];
        $Password = $_POST['pwd'];
        echo "Welcome... " . $Name;
    }
    echo "<br><br><a href='login3.php'>Log Out</a>";
    ?>
</body>
</html>
```

```
<html>

<head>
    <title>Login Form</title>
</head>

<body>
    <?php
    echo " You Are Successfully Log Out.......";
    ?>
</body>

</html>
```

Name: [_____]

Password: [_____]

[Submit]

Welcome.. Krazyy Kunal

Log Out

8. Design a database in MYSQL:

```
                        (index.php)
<?php
$servername = "localhost";
$username = "root";
$password = "";
$database = "new_db";

// Create connection
$conn = new mysqli($servername, $username, $password,
$database);

// Check connection
if ($conn->connect_error) {
```

```php
    die("Connection failed: " . $conn->connect_error);
}

echo "Connected successfully<br>";

// Insert data
$name = "John";
$email = "john@example.com";
$sql = "INSERT INTO users (name, email) VALUES ('$name',
'$email')";

if ($conn->query($sql) === TRUE) {
    echo "New record created successfully<br>";
} else {
    echo "Error: " . $sql . "<br>" . $conn->error;
}

// Retrieve data
$sql = "SELECT * FROM users";
$result = $conn->query($sql);

if ($result->num_rows > 0) {
    // Output data of each row
    while ($row = $result->fetch_assoc()) {
        echo "id: " . $row["id"] . " - Name: " . $row["name"]
. " - Email: " . $row["email"] . "<br>";
    }
} else {
    echo "0 results";
}

// Update data
$sql = "UPDATE users SET age = 40 WHERE id = 1";

if ($conn->query($sql) === TRUE) {
    echo "Record updated successfully<br>";
} else {
    echo "Error updating record: " . $conn->error;
}
```

```php
// Delete data
$sql = "DELETE FROM users WHERE id = 3";

if ($conn->query($sql) === TRUE) {
    echo "Record deleted successfully<br>";
} else {
    echo "Error deleting record: " . $conn->error;
}

// Close connection
$conn->close();
```

```sql
                          (new_db.sql)

USE new_db;

CREATE TABLE users (
    id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(50),
    email VARCHAR(100),
    age INT
);

INSERT INTO
    users (name, email, age)
VALUES
    ('John Doe', 'john@example.com', 30),
    ('Jane Smith', 'jane@example.com', 25);
```

Output –

Connected successfully
New record created successfully
id: 1 - Name: John Doe - Email: john@example.com
id: 2 - Name: Jane Smith - Email: jane@example.com
id: 3 - Name: John - Email: john@example.com
Record updated successfully
Record deleted successfully

9. Store, Retrieve and Delete Cookies:

```
<html>
<head>
<title>To Store, Retrieve, And Delete Cookies On Your Local
Machine</title>
</head>

<body>
    <?php
    // Set cookies
    setcookie("sub[0]", "Subject Title", time() + 60);
    setcookie("sub[1]", "JAVA", time() + 60);
    setcookie("sub[2]", "IC", time() + 60);
    setcookie("sub[3]", "OT", time() + 60);
    setcookie("sub[4]", "CC", time() + 60);
    setcookie("sub[5]", "ORACLE", time() + 60);

    // Check if cookies are set and display them
    if (isset($_COOKIE['sub'])) {
        echo "<table border='1'>";
        echo "<tr>";
        echo "<th colspan='2'>" . $_COOKIE['sub'][0] .
"</th>"; // Subject Title
        echo "</tr>";
        echo "<tr>";
        echo "<th> Subject No</th>
            <th>Subject Name</th>";
        echo "</tr>";
        foreach ($_COOKIE['sub'] as $name => $value) {
            if ($name != 0) { // Exclude Subject Title
                echo "<tr>";
                echo "<td>$name</td>
                    <td>$value</td>";
                echo "</tr>";
            }
        }
        echo "</table>";
    }
```

```
    // Delete cookies
    setcookie("sub[0]", "", time() - 60);
    setcookie("sub[1]", "", time() - 60);
    setcookie("sub[2]", "", time() - 60);
    setcookie("sub[3]", "", time() - 60);
    setcookie("sub[4]", "", time() - 60);
    setcookie("sub[5]", "", time() - 60);

    echo "<br> After one minute, cookie's content will be
deleted </br>";
    ?>
</body>
</html>
```

Output –

After one minute, cookie's content will be deleted

10. Store, Retrieve and Delete Data Using Session Variables:

```
<html>

<head>
    <title>Session Variables</title>
</head>
<body>
    <?php
    session_start();
    $currentID = session_id();
    echo "The current session ID is := " . $currentID;
    session_destroy();
    session_id('mynewsession5');
    session_start();
    $newID = session_id();
    print "<br> The new session_id is : " . $newID;
    session_destroy();
    ?>
</body></html>o23bttlsgq3fe4673r3b0m8t6md is : mynewsession5
```

Output -

The current session ID is := o23bttlsgq3fe4673r3b0m8t6m
The new session_id is : mynewsession5