

# PHP Practice Exercises - Chapter 1

## Exercise 1: Basic Variables

Create a PHP script that displays personal information:

```
<?php
// TODO: Create variables for:
// - Your name (string)
// - Your age (integer)
// - Your email (string)
// - Whether you're a student (boolean)

// TODO: Display all information using echo
?>
```

### Expected Output:

```
Name: John Smith
Age: 22
Email: john@example.com
Student: 1
```

## Exercise 2: String Manipulation

Create a script that works with strings:

```
<?php
$firstName = "Alice";
$lastName = "Johnson";
$city = "New York";

// TODO: Create and display:
// - Full name (first + last)
// - A greeting message
// - Full name in uppercase
// - Length of the full name
?>
```

## Exercise 3: Simple Calculator

Create a calculator script:

```
<?php
$num1 = 15;
$num2 = 4;

// TODO: Calculate and display:
// Addition, Subtraction, Multiplication, Division
```

```
// Use proper formatting for output
?>
```

## Exercise 4: Conditional Logic

Create a grade evaluator:

```
<?php
$score = 87;

// TODO: Use if-else to display:
// 90-100: "Excellent"
// 80-89: "Good"
// 70-79: "Average"
// 60-69: "Below Average"
// Below 60: "Failing"
?>
```

## Exercise 5: Loops Practice

Create a multiplication table:

```
<?php
$number = 5;

// TODO: Use a for loop to display:
// 5 x 1 = 5
// 5 x 2 = 10
// ... up to 5 x 10 = 50
?>
```

## Exercise 6: Array Basics

Work with a simple array:

```
<?php
$fruits = ["apple", "banana", "orange", "grape"];

// TODO: Display each fruit using a foreach loop
// TODO: Display the total number of fruits
?>
```

## Solutions

### Exercise 1 Solution:

```
<?php
$name = "John Smith";
$age = 22;
$email = "john@example.com";
```

```

$isStudent = true;

echo "Name: " . $name . "<br>";
echo "Age: " . $age . "<br>";
echo "Email: " . $email . "<br>";
echo "Student: " . ($isStudent ? 1 : 0) . "<br>";
?>

```

## Exercise 2 Solution:

```

<?php
$firstName = "Alice";
$lastName = "Johnson";
$city = "New York";

$fullName = $firstName . " " . $lastName;
$greeting = "Hello, $firstName from $city!";
$upperName = strtoupper($fullName);
$nameLength = strlen($fullName);

echo "Full Name: " . $fullName . "<br>";
echo "Greeting: " . $greeting . "<br>";
echo "Uppercase: " . $upperName . "<br>";
echo "Length: " . $nameLength . "<br>";
?>

```

## Exercise 3 Solution:

```

<?php
$num1 = 15;
$num2 = 4;

echo "Addition: " . ($num1 + $num2) . "<br>";
echo "Subtraction: " . ($num1 - $num2) . "<br>";
echo "Multiplication: " . ($num1 * $num2) . "<br>";
echo "Division: " . ($num1 / $num2) . "<br>";
?>

```

## Exercise 4 Solution:

```

<?php
$score = 87;

if ($score >= 90) {
    echo "Excellent";
} elseif ($score >= 80) {
    echo "Good";
} elseif ($score >= 70) {
    echo "Average";
} elseif ($score >= 60) {
    echo "Below Average";
} else {
    echo "Failing";
}

```

?>

### **Exercise 5 Solution:**

```
<?php
$number = 5;

for ($i = 1; $i <= 10; $i++) {
    $result = $number * $i;
    echo "$number x $i = $result<br>";
}
?>
```