

## 1. Area and Perimeter of Rectangle

```
<?php
$length = 10;
$width = 5;

$area = $length * $width;
$perimeter = 2 * ($length + $width);

echo "Area of Rectangle: $area <br>";
echo "Perimeter of Rectangle: $perimeter <br>";
?>
```

---

## 2. VAT Calculation

```
<?php
$amount = 1000;
$vat = $amount * 0.15;
echo "VAT on $amount is: $vat <br>";
?>
```

---

## 3. Odd or Even

```
<?php
$num = 7;

if ($num % 2 == 0) {
    echo "$num is Even <br>";
} else {
    echo "$num is Odd <br>";
}
?>
```

---

## 4. Largest Number from Three Numbers

```
<?php
$a = 12; $b = 25; $c = 18;

if ($a > $b && $a > $c) {
    echo "$a is the largest <br>";
} elseif ($b > $a && $b > $c) {
    echo "$b is the largest <br>";
} else {
    echo "$c is the largest <br>";
}
?>
```

---

## 5. Print Odd Numbers (10–100)

```
<?php
for ($i = 10; $i <= 100; $i++) {
    if ($i % 2 != 0) {
        echo $i . " ";
    }
}
?>
```

---

## 6. Search an Element in Array

```
<?php
$arr = array(10, 20, 30, 40, 50);
$search = 30;
$found = false;

foreach ($arr as $value) {
    if ($value == $search) {
        $found = true;
        break;
    }
}

if ($found) {
    echo "Element $search found in array <br>";
} else {
    echo "Element $search not found <br>";
}
?>
```

---

## 7. Print Shapes with Nested Loop

```
<?php
// Shape 1
for ($i = 1; $i <= 3; $i++) {
    for ($j = 1; $j <= $i; $j++) {
        echo "* ";
    }
    echo "<br>";
}

echo "<br>";

// Shape 2
$num = 1;
for ($i = 3; $i >= 1; $i--) {
    for ($j = 1; $j <= $i; $j++) {
        echo $num++ . " ";
    }
    echo "<br>";
}

echo "<br>";
```

```
// Shape 3
$char = 'A';
for ($i = 1; $i <= 3; $i++) {
    for ($j = 1; $j <= $i; $j++) {
        echo $char++ . " ";
    }
    echo "<br>";
}
?>
```

---

## 8. 2D Array & Shapes

```
<?php
$arr = [
    [1, 2, 3, 'A'],
    [1, 2, 'B', 'C'],
    [1, 'D', 'E', 'F']
];

for ($i = 0; $i < count($arr); $i++) {
    for ($j = 0; $j < count($arr[$i]); $j++) {
        echo $arr[$i][$j] . " ";
    }
    echo "<br>";
}
?>
```