Sure! Here are the answers to your questions in PHP:

1. Comparing three integers and printing the largest number:
```php
function findLargest($num1, $num2, $num3) {
 $max = $num1;
 if ($num2 > $max) {
   $max = $num2;
 }
 if ($num3 > $max) {
   $max = $num3;
 }
 return $max;
}

$num1 = 10;
$num2 = 20;
$num3 = 15;

$largest = findLargest($num1, $num2, $num3);
echo "The largest number is: " . $largest;
```

2. Calculating the factorial of a number:
```php
function factorial($num) {
 if ($num <= 1) {
   return 1;
 } else {
   return $num * factorial($num - 1);
 }
}

$num = 5;
$result = factorial($num);
echo "The factorial of $num is: " . $result;
```

3. Checking if a number is prime:
```php
function isPrime($num) {
 if ($num <= 1) {
   return false;
 }
```

```php
  for ($i = 2; $i <= sqrt($num); $i++) {
    if ($num % $i == 0) {
      return false;
    }
  }

  return true;
}

$num = 17;
if (isPrime($num)) {
  echo "$num is a prime number.";
} else {
  echo "$num is not a prime number.";
}
```

4. Reversing a string:
```php
if ($_SERVER['REQUEST_METHOD'] === 'POST') {
  $str = $_POST['string'];
  $reversed = strrev($str);
  echo "Reversed string: " . $reversed;
}
?>

<form method="post" action="">
  <input type="text" name="string" placeholder="Enter a string">
  <input type="submit" value="Reverse">
</form>
```

5. Checking if a string is all lowercase:
```php
function isLowercase($str) {
  return $str === strtolower($str);
}

$string = "hello world";
if (isLowercase($string)) {
  echo "The string is all lowercase.";
} else {
  echo "The string is not all lowercase.";
```

```
}
```

Please let me know if you would like to see the answers to the remaining questions.

Certainly! Here are the answers to the remaining questions:

6. Checking if a string is a palindrome:
```php
function isPalindrome($str) {
  $str = strtolower($str);
  $str = str_replace(' ', '', $str);
  $reversed = strrev($str);
  return $str === $reversed;
}

$string = "nurses run";
if (isPalindrome($string)) {
  echo "The string is a palindrome.";
} else {
  echo "The string is not a palindrome.";
}
```

7. Sorting an array:
```php
$numbers = array(5, 2, 8, 3, 1);
sort($numbers);
print_r($numbers);
```

8. Removing whitespaces from a string:
```php
$string = 'The quick " " brown fox';
$noWhitespace = str_replace(' ', '', $string);
echo "String with whitespaces removed: " . $noWhitespace;
```

9. Finding the sum of the first n odd numbers:
```php
function sumOfOddNumbers($n) {
  $sum = 0;
  for ($i = 1; $i <= $n; $i++) {
    $sum += (2 * $i - 1);
```

```php
  }
  return $sum;
}

$n = 5;
$sum = sumOfOddNumbers($n);
echo "The sum of the first $n odd numbers is: " . $sum;
```

10. Creating a login page with user authentication:
```php
$registeredUsers = array(
  'user1' => 'password1',
  'user2' => 'password2',
  'user3' => 'password3'
);

if ($_SERVER['REQUEST_METHOD'] === 'POST') {
  $username = $_POST['username'];
  $password = $_POST['password'];

  if (isset($registeredUsers[$username]) && $registeredUsers[$username] === $password) {
    echo "Welcome, $username!";
  } else {
    echo "Error: Invalid username or password.";
  }
}
?>

<form method="post" action="">
  <input type="text" name="username" placeholder="Username">
  <input type="password" name="password" placeholder="Password">
  <input type="submit" value="Submit">
</form>
```

11. Checking if a string contains another string:
```php
$string = "Hello, World!";
$search = "World";

if (strpos($string, $search) !== false) {
  echo "The string contains '$search'.";
} else {
```

```php
  echo "The string does not contain '$search'.";
}
```

12. Creating a birthday countdown script:
```php
$birthday = strtotime('2023-06-30');
$currentDate = time();
$daysLeft = floor(($birthday - $currentDate) / (60 * 60 * 24));

echo "There are $daysLeft days left until your birthday.";
```

13. Creating a pattern using nested for loops:
```php
for ($i = 1; $i <= 5; $i++) {
  for ($j = 1; $j <= $i; $j++) {
    echo "* ";
  }
  echo "<br>";
}
```

14. Checking if an email is valid:
```php
function isValidEmail($email) {
  return filter_var($email, FILTER_VALIDATE_EMAIL) !== false;
}

$email = 'test@example.com';
if (isValidEmail($email)) {
  echo "The email is valid.";
} else {
  echo "The email is invalid.";
}
```

15. Printing the first n even numbers:
```php
function printEvenNumbers($

n) {
  for ($i = 1; $i <= $n; $i++) {
    echo ($i * 2) . " ";
```

```php
  }
}

$n = 5;
echo "The first $n even numbers are: ";
printEvenNumbers($n);
```

16. Displaying colors in a specific format:
```php
$colors = array('white', 'green', 'red');

echo implode(", ", $colors) . "<br>";
echo "• " . $colors[1] . "<br>";
echo "• " . $colors[2] . "<br>";
echo "• " . $colors[0] . "<br>";
```

17. Displaying a "Hello" message based on language selection:
```php
if ($_SERVER['REQUEST_METHOD'] === 'POST') {
  $language = $_POST['language'];

  switch ($language) {
    case 'english':
      echo "Hello!";
      break;
    case 'french':
      echo "Bonjour!";
      break;
    case 'spanish':
      echo "¡Hola!";
      break;
    default:
      echo "Hello!";
  }
}
?>

<form method="post" action="">
  <select name="language">
    <option value="english">English</option>
    <option value="french">French</option>
    <option value="spanish">Spanish</option>
```

```
  </select>
  <input type="submit" value="Submit">
</form>
```

18. Printing Fibonacci series using recursion:
```php
function fibonacci($n) {
  if ($n <= 1) {
    return $n;
  } else {
    return fibonacci($n - 1) + fibonacci($n - 2);
  }
}

$limit = 10;
for ($i = 0; $i < $limit; $i++) {
  echo fibonacci($i) . " ";
}
```

19. Replacing the first occurrence of 'the' in a string:
```php
$string = 'the quick brown fox jumps over the lazy dog.';
$replaced = preg_replace('/the/', 'That', $string, 1);
echo "Modified string: " . $replaced;
```

I hope these answers help you. Let me know if you have any further questions!