# PHP Homework for Week 3: Chapters 3 and 4

## Exercise 1: Basic variable and operators

1. Create an HTML file with DOCTYPE, html, head, body, meta charset, and title tags.
2. Initialize a variable `$r` with the number 5.
3. Print the `$r` variable on a line by itself using echo or printf.
4. Initialize a variable `$pi` with the number 3.14159.
5. Print the `$pi` variable on a line by itself using echo or printf.
6. Calculate the area of the circle by using the equation area = radius * radius * pi, and print the resulting area.
7. Your calculation should not use the original numbers, but it should use the `$r` and `$pi` variables you created earlier.
8. Print "The area of the circle is" then print the area of the circle, all on one line, using echo or printf.
9. Save the file as `circle.php`.

## Exercise 2: Arrays

1. Create an HTML file with DOCTYPE, html, head, body, meta charset, and title tags.
2. Insert a PHP code block.
3. Add the following code to the PHP code block:

```
$colors = array ("Black", "Brown", "Red" …);
```

4. Continue with the rest of these colors: Orange, Yellow, Green, Blue, Violet, Gray, White.
5. See the code near Figure 3-3 in the textbook for an example.
6. Print "The colors in English are: ", then print the contents of the array. You'll have to print out the array elements one at a time, because we haven't yet learned any other way to do it.
7. Reassign the elements of the array, one at a time, to the following colors: Negro, Marron, Rojo, Anaranjado, Amarillo, Verde, Azul, Violeta, Gris, Blanco. For example:

```
$colors[0] = "Negro";
```

8. Print "The colors in Spanish are: ", then print the contents of the array.
9. Save the file as `colors.php`.

## Exercise 3: Twelve images displayed on one page

1. Create an HTML file with DOCTYPE, html, head, body, meta charset, and title tags.
2. Insert 12 thumbnail-sized images of any topic that interests you. In previous years of this class, we used the 12 signs of the Chinese Zodiac. You might choose something like this:
    a. 12 Pixar movies
    b. 12 Disney characters
    c. 12 Programming languages
    d. 12 Tribes of Israel
    e. 12 Banned Books
    f. 12 Months of the calendar
    g. 12 Media formats (LP, cassette, CD, DVD, etc.)
    h. 12 country flags
    i. 12 European countries
    j. 12 Apostles
3. Use Photoshop or CSS to make all the images the same size. Display all the images on your HTML web page. They don't have to have titles, captions or descriptions.
4. When acquiring these images (you'll probably find them on the internet; that's OK), you might want to have a smaller and a larger version of each image, for use in a future assignment. You can do this easily by collecting
5. Save the file as `images.php`.

## Exercise 4: Descriptions of the twelve images

1. Create an HTML file with DOCTYPE, html, head, body, meta charset, and title tags.
2. Research the 12-topic you chose above. Write one sentence or short paragraph (`<p>`) about each of your 12 items.
3. Save the file as `research.php`.

## Exercise 5: Create buttons for your site in Photoshop or CSS

1. Create an HTML file with DOCTYPE, html, head, body, meta charset, and title tags.
2. In Photoshop or in CSS, create five buttons with the following content:
    a. Home Page
    b. Control Structures
    c. String Functions
    d. Web Forms
    e. Midterm
3. The buttons should all be the same size and use the same font. You can do it in CSS by specifying height and width for each button. Make sure each button has a border and/or a background so they look like buttons. Make sure you specify a width wide enough that the longest text fits. Do not change the size of the text from button to button to make the text fit.
4. You could also do the buttons in Photoshop if you know how.
5. Save the file as `buttons.php.`

## Exercise 6: Put the files in a folder and turn them in

1. Create a folder called chapter01.
2. Put all the above files in the chapter01 folder.
3. Link all the projects in the chapter01 folder to your home page. Note that you'll have to use relative links that specify the folder name:

```
<a href='chapter01/buttons.php'>Buttons</a>
```

4. Upload your files to the `php.missioncollege.edu` server.
5. Put the files in your `public_html` folder.