```
Congratulations! You passed!
                                                                                 Next Item
           What is the purpose of adding CSS to a web page?
                  To make the web page interactive
                  To style the web page
             Correct
                  To layout the web page
                   To put images on the web page
           Which of the following are examples of nesting? Select all that are correct.
                  A for loop inside a for loop
             A for loop inside another for loop is a nested for loop.
                   A list of lists
             Correct
             A list inside another list is a nested list.
                  A table
             Un-selected is correct
                  An image
             Un-selected is correct
                  A list inside a table
             Un-selected is correct
           Consider the following HTML and CSS to make a web page.
           HTML:
               1 - <head>
               2 </head>
               3 <title>Cities</title>
               4 ₹ <body>
               5 < <p><img src="http://s12.postimg.org/yj9byjs3x/DSCN6056_copy.jpg"/>
               7 - >
               8 -
                       New York
               9
              10 -
                           Empire State Building
              11
                           Statue of Liberty
              12
                           Times Square
              13
              14
                         15
                       Los Angeles
                      Chicago
              16
              17
                    18 
              19 </body>
              20
           CSS:
              1 <del>-</del> body {
              2 background-color : #567898;
              3 }
              4 → oddNums {
              5 color : purple;
           Which of the following are errors in this code? Select all that are correct.
                  The unordered list inside the ordered list should go inside the list element New
                  York, not after it.
             Correct
             If you responded incorrectly, review Week 1.
                  The property background-color is not the correct property to change the
                  background of the page.
             Un-selected is correct
                   The HTML is missing <a href="html">html</a> tags.
             Correct
             Although you do not see <html> tags in the Codepen editing view, the <html> tag
             is a required component of a web page.
                   In the CSS there should be a dot before oddNums to indicate that it is a class.
             If you responded incorrectly, review Week 1.
                   There should not be semicolons at the ends of the statements in the CSS.
             Un-selected is correct
                   The <title> tag should be inside the <head> tag.
             If you responded incorrectly, review Week 1.
                  The <img> tag is missing the width attribute.
             Un-selected is correct
           Consider the following image in which the upper left quadrant is cyan, the
           upper right quadrant is green, the lower left quadrant is blue, and the lower
           right quadrant is black:
           Now consider the code that attempts to create that image but has a mistake,
           and instead produces this image, in which the upper left quadrant is blue
           instead of cyan:
           Here is the code:
              1 var img = new SimpleImage(200,200);
               2 for (var px of img.values()){
                      var x = px.getX();
                      var y = px.getY();
                      if (x < img.getWidth()/2){</pre>
                          px.setBlue(255);
                      else {
               8 =
                          if (y < img.getHeight()/2){</pre>
               9 +
                               px.setGreen(255);
              10
              11
              12
              13 }
              14 print (img);
              15
           Which of the following is the best explanation of why this code doesn't
           produce the first image?
                  First the upper half of the image is made green, then when the left half is made
                  blue it overwrites the green pixels and makes them blue.
                  The if statement inside the else statement checks if pixels are in the upper half
                   and the right half of the image, so only the upper right quadrant of the image is
                  made green.
                  The code inside the else statement is only applied to pixels that did not satisfy
                  the first if statement. So only pixels in the upper half of the image that are not
                  also in the left half of the image are made green by the if statement inside the
                  else statement.
             Correct
             Correct!
           Consider the following short program that defines a function to make an
           image darker by a certain amount and applies it to the image chapel.png.
               1 - function makeDarker(image,amount){
                     for (var px of image.values()){
                          px.setRed(px.getRed()-amount);
                          px.setGreen(px.getGreen()-amount);
                          px.setBlue(px.getBlue()-amount);
               6
               8 img = new SimpleImage("chapel.png");
               9 img = makeDarker(50);
              10 print(img);
              11
           Which of the following are errors in the program? Select all that are correct.
                  The function makeDarker doesn't make an image darker, it makes an image
                  gray, because it sets the red, green, and blue values to the same value.
             Un-selected is correct
                   The call to makeDarker does not pass an image as an argument.
             Correct
             The function makeDarker has two parameters but the call to makeDarker only
             has one argument instead of two.
                   The function makeDarker is missing a return statement so there will be an
                  error when the program assigns the return value of makeDarker to the
                  variable img.
             Correct
                  The line that initializes the variable img is missing the keyword var.
             Correct
             Refer back to the "Variables" video to review how to declare and initialize
             variables.
                   The line img = makeDarker(50); is missing the function keyword.
             Un-selected is correct
     6. Imagine you want to write a program to turn an image into a mirror image of
           itself. Which of the following would be the best approach to take?
                  Write code to solve the problem, test and debug your program, improve your
                  program by adding more features.
                  Gather domain knowledge, work small examples by hand, write down what you
                  did, look for patterns, translate your algorithm to code.
                  Work small examples by hand, write down what you did, look for patterns,
                  translate your algorithm to code, test and debug your program.
             Correct
             Correct! This follows the seven step process.
           Consider the following JavaScript code.
               1 var grayimage = null;
               2 var image;
               3 - function loadImage(){
                    var ff = document.getElementById("fbutton");
                    gcanvas = document.getElementById("can");
                    doclear();
                     image = new SimpleImage(ff);
                     image.drawTo(can);
               9
              10 → function makeGray(theImage) {
                     for (var pix of theImage.pixels()){
                      var total = pix.getGreen() + pix.getRed() + pix.getBlue();
              12
                      var avg = total/3;
              13
                      pix.setGreen(avg);
              14
                      pix.setBlue(avg);
              15
                       pix.setRed(avg);
              16
              17
              18
                    return theImage;
              19 }
           Which of the variables are global variables? Select all that are correct.
                  grayimage
             Correct
             If you responded incorrectly, refer to the video "Convert Image to Grayscale" in
             Week 3 to review global variables.
                  thelmage
             Un-selected is correct
             Un-selected is correct
             Un-selected is correct
             Un-selected is correct
                  image
             If you responded incorrectly, refer to the video "Convert Image to Grayscale" in
             Week 3 to review global variables.
           Which is the appropriate event handler to do something once a file has loaded?
                  onchange
             Correct
                  onclick
                  onmouseover
           shown) to apply a green filter to the image greenImage.
              1 - function doGreen() {
              2 - if (imageIsLoaded(greenImage)) {
```

```
Consider the following code that calls the function filterGreen (code for this function not
                 filterGreen();
         5 }
      What line needs to be added to this code to display the final image on the canvas? You
      can assume that there is a variable named canvas that can be used to reference the
      canvas.
         greenImage.drawTo(canvas);
        Correct Response
10. Consider the examples you have seen of web pages that enable users to upload images
      and add filters to them. Which of the following describes what happens when the user
      clicks a button to add a filter to an image?
              The onclick event handler allows the user to choose an image to apply the filter
              to, then it calls a function that applies the filter to the image, and the filtered
              image is drawn on the canvas.
              The mouseover event handler calls the function that draws the image to the
              canvas, then the onclick event handler calls the function that applies the filter
              to the image.
              The onclick event handler calls a function that applies the filter to the image,
              then the filtered image is drawn on the canvas.
             The onclick event handler calls the function that draws the image to the canvas,
              then the filter is added.
```