Formatting Text

1. Compare and contrast div and span tags.
2. What is a serif font?
3. Show “Text 1” centered on the page in the font Georgia or Arial. The text should also be underlined.
4. Show the word rainbow on a page where each letter of the word is a different color of the rainbow in order (ROYGBIV). Also, the entire word should be bold.
5. Show “Text 2” right aligned on the page and in italics.
6. Show “Left Aligned” in a div that is left aligned on the page. On the same page,show “Right Aligned” in a div that is right aligned on the page. Use styles to make both words appear on the same line.

Lists & Tables

1. What is the difference between an ordered list and unordered list?
2. What is the difference between a <th> and <td> tag?
3. Make an unordered list of three activities that you do.
4. Make an ordered list of the first four months of the year.
5. Make a table that shows your class schedule. The first column should be the course name, the second column should be the teacher, and the third column your expected grade in the course.

Internal Styles

1. What is the difference between an id attribute and a class attribute on an html element? How are each denoted in CSS?
2. Create an internal style to be applied to all h1 tags that makes them red on a black background with a border of 5 pixels that is yellow and dotted.
3. Create an internal style to be applied to all members of the blueLarge class that makes the color of the item blue and twice the size of the normal page text.
4. Create an internal style to be applied to an element with the id currentPage. The current page should have a background color of green with yellow, underlined text on it.
5. If an html element is assigned to be yellow in an internal style and green in an inline style, which will it appear as and why?

Structure Tags

1. Identify what each of the following tags should be used for:
    a. <header>
    b. <footer>
    c. <nav>
    d. <article>
    e. <section>
    f. <aside>
2. When should a div tag be used?

JavaScript IO

1. Write a web page that takes a users email and displays it in a pop up window as “Email: user@whatever.com”.
2. Write a web page that takes a users favorite web site and displays it on the web page as a functioning link for the text “See My Fav Site”.
3. Write a web page that takes a number from a user and shows them the result of that number when 10 is added to it.

4. Write a web page that asks a user if they like Computer Science in a confirm box. Write output on the page that is a full sentence describing their answer.
5. Write a web page that asks a user for their street address, city, state and zip. Then, format the address for display in an alert box.

JavaScript Functions/Events

1. ~~Write an image tag that shows a picture called pic.jpg and calls a function called replaceImage on mouseover.~~
2. Write the html to create a button that says “click me” and calls a function called doSomething when it is clicked.
3. Write the html code to call a function called startup when the page finishes loading.
4. ~~Write the function replaceImage, from question 1, that is designed to change the image source to be pic2.jpg.~~
5. Write the function doSomething, from question 2, that is designed to change the text on the button to be “well done”.
6. Write the function startup, from question 3, that is designed to find the item with id=’title’ and alter its appearance to have a red, outset, 3px border and make the color of the text red as well.

Functions & Parameters

1. ~~What is a parameter and how is it used?~~
2. ~~Write a function called time. The function should take two parameters, hours and minutes. The time function should create an alert that shows the values in the format hours:minutes.~~
3. ~~Write the code that asks a user for the current hour and minutes and then calls the time function written in question #2.~~
4. ~~Write a function called getSum that calculates the sum of three monetary values. Each of the values should be accepted by the method as a parameter. Once calculated, the method should change the display value of the input element with id total.~~
5. ~~Write the code that calls getSum. The three monetary values can be gathered from the input elements with ids item1, item2 and item3.~~

Logical Operators and Truth Tables

1. Write a condition that tests if the int variable num is greater than or equal to the value 5.
2. Write the condition that tests of the String variable fav is equal to the word JavaScript.
3. Write the condition that tests if the character variable continue is equal to the letters Y or y.
4. ~~Given a boolean statement with 5 variables, how many rows would a truth table need? Describe how to arrange the values of each column.~~
5. ~~Given the following statement: (A || B) && (C || A), complete the truth table.~~
6. ~~Given the statement A && (B || C), find all sets that make the statement true.~~
7. ~~Using the statement A && (B || C), if A stands for class==”CS1”, B stands for block==4 and C stands for block==2, generate test data for the sets of data found in question 6.~~

Conditions

1. Write the condition that compares a users gpa to 3.5. If it is 3.5 or bigger, alert that they will graduate “Cum Laude”, which means “With Honors”.
2. Given the variables total (a monetary value) and paymentType (a string), write the code that will add a $10.00 charge to the total if the paymentType is credit and the total is less than $15.00.
3. When graduating from college, “Cum Laude” is the lowest of the honors. Above that is “Magna Cum Laude”, which means “With Great Honor” and “Summa Cum Laude” which means “With Highest

Praise". Cum Laude begins at 3.5, Magna at 3.8 and Summa at 4.0. Write a program that asks a user for their gpa and outputs the appropriate honors that they are graduating with. If they are not graduating with any honors, simply congratulate them on graduating. The output can be done as an alert.

4. A website banner, with id banner, has 5 images that it cycles through: ad1, ad2, ad3, ad4 and ad5. There exists a variable called count, which is a number, signifying the number of the image. If the number is less than 5, add one to it and reset the image source to the new picture.

Math and String Methods

1. Write the code to find the minimum value of the variables num1, num2 and num3.
2. Write the code to round the value total up to the nearest dollar.
3. Write the code to find the absolute value of the number stored in the variable distance.
4. Write the code to find the hypotenuse (c) of a right triangle given the two legs (a and b). The pythagorean formula ($a^2 + b^2 = c^2$) and will be helpful in this calculation.
5. Write the code to find the first occurrence of the "@" symbol in a variable called email.
6. Write the code to find the length of the string stored in password.
7. Write the code to find the first three characters of the string, cellNumber. Store them in a variable called areaCode.
8. Write the code to find the last three characters of the string email. Store them in a variable called extension. If the extension is .com or .net, alert the word popular.

Number Systems

1. Convert 543 to binary.
2. Convert 126 to binary.
3. Convert 1010111_2 to base 10.
4. Convert 11101110101_2 to base 10.
5. ~~Convert 782 to hex.~~
6. ~~Convert 1576 to hex.~~
7. ~~Convert $A3F_{16}$ to base 10.~~
8. ~~Convert $ABCD_{16}$ to decimal.~~
9. ~~Convert 10101101101_2 to hex.~~
10. ~~Convert $F3D_{16}$ to binary.~~

Computer History

1. ~~Who was the creator of the Difference Engine and Analytical Engine. Which one was more simliar to our modern computers?~~
2. ~~Explain what Herman Hollerith's machine did? What did his company, the Tabulating Machine Company, become in 1924?~~
3. ~~If the first generation of computers were characterized by vaccum tubes, what were the following generations characterized by:~~
    a. ~~2nd Generation:~~
    b. ~~3rd Generation:~~
    c. ~~4th Generation:~~
4. ~~Where was the ENIAC created and what was its purpose?~~
5. ~~What company first created a computer with a graphical user interface?~~

Web Page Design

1. Explain the difference between serif and sans-serif fonts.

2. What is active whitespace and how is it used in web design?
3. Why are most grids based on 960px? How does a grid help you layout a web page?
4. Explain the F shape reading pattern and how it affects page layout.
5. Explain the general feeling/mood associated with each of the following colors:
    a. purple
    b. green
    c. yellow
    d. blue

Site Organization

1. Write the code to link an external stylesheet, called navStyle.css, to a web page.
2. ~~Write the code to link an external javascript, called navScript.js, to a web page.~~
3. Explain the advantages/disadvantages of each of the different types of styles (inline, internal, external).
4. What folders should always be a part of your site?
5. Why do we always call the home page of our site index.html?

~~Web Development~~

1. ~~Compare and contrast the three basic types of web hosts (free, shared and dedicated).~~
2. ~~What information should be in a proposal?~~
3. ~~What is a directory structure and how is it used?~~
4. ~~What type of information should be on a web page storyboard?~~

~~Canvas Gradients and Images~~

~~For each problem, assume that the canvas and context have been created and stored in variables named canvas and context.~~

1. ~~Write the code to create a linear gradient that fills a square that is 100 x 100. The gradient should be 4 colors(white/pink/red/black), evenly split across the gradient. The gradient should spread vertically over the span of 100 pixels.~~
2. ~~Write the code to create a radial gradient that fills a circle with radius 100 and center at 50, 50. The gradient should be 3 colors (blue, yellow, green), evenly split across the gradient.~~
3. ~~Write the code to add an image called pic.jpg into a canvas. The image is stored in a folder called images.~~