For this test, you have only 45 minutes. We are going to test how well you manage your time. Each question is worth one point. If you answer a question correctly, you get one point. How many points can you get in 45 minutes? Time yourself and answer as many questions as you can. **Don't look at the test before you start the timer.** Spend only 45 minutes taking the test. You might encounter the same question twice. If the same question appears two times, answer it each time and get a point for each time you answer the question.

After you finish this test, after the 45 minutes are done, fill in the blank in this sentence with the appropriate number:

I answered 26 questions in 45 minutes.

* What is the difference between "class" and "id" in HTML and how are they used in CSS?

We use "class" if we want to use the same selector more than once, while "id" is element specific. Class is used in css as .name\_of\_the\_class, while id is used as #name\_of\_the\_class.

* How can you create a responsive website using media queries?
* What is the difference between "padding" and "margin" in CSS?

Padding is a space between element border and element conent, while margin is space around element border.

* How can you create a background image that covers the entire viewport of a website?

body {

background-image: url('image-url');

background-size: cover;

background-repeat: no-repeat;

background-position: center-center;

}

* What is the difference between "inline" and "block" elements in HTML and how can you change an element's display property?

"block" elements take up full width of their container. Examples are: <div>, <p> or <h1-h6>. "inline" elements only take as much width as neccessary. Examples are: <a>, <input> or <img>.

* How can you create a two-column layout using CSS?
* Which Egyptian pharaoh is believed to have been the first to use a prosthetic toe?
* In what year did the Great Emu War take place in Australia?
* What is the purpose of the "z-index" property in CSS?
* Who was the first recorded female pirate in history?
* Which US president was known for his love of wrestling and once got into a wrestling match while in office?
* What was the first country to officially recognize the United States as an independent nation?
* Which ancient civilization built the city of Petra, which is now a UNESCO World Heritage site in Jordan?
* How can you create a button with a gradient background using CSS?

button {

background-image: linear-gradient(180deg, color1, color2);

padding: 20px 40px;

}

* What is the "float" property in CSS and how can you use it to create a multi-column layout?

"float" property allows content to flow around it as we can position it right or left to its containing element.

* How can you center an element horizontally and vertically on a webpage?

.element {

flex: display;

justify-content: center;

align-items: center;

}

* What is the purpose of the "transition" property in CSS?
* How can you create a responsive image that adjusts its size based on the size of the viewport?

<img src='imagesource.png' alt='image' style='max-width=100%; height=auto;'>

* How can you create a hover effect on an element using CSS?

element:hover {

background-color: blue;  
}

* What is the purpose of the "display" property in CSS and how can you use it to control how elements are displayed on a webpage?

"display" property controls how the elements are displayed on the webpage. We use it as "display: none", "display: block", "display: flex" etc.

* How can you create a fixed background image on a webpage?
* What is the difference between "em" and "px" units in CSS?

"px" is absolute unit of measurment, value stays constant, while "em" is relative unit of measurment that changes depending on how parent element changes.

* How can you use the "position" property in CSS to position an element on a webpage?

.element {

position: fixed;

}

* How can you use CSS to create a responsive video that adjusts its size based on the size of the viewport?

.video {

position: relative;

}

* What is CSS used for?

CSS is used for styling web pages according to our desires.

* How do you create a hyperlink in HTML?

<a href='link'>some text</a>

* How do you add an image to a webpage using HTML?

<img src='imagesource.png' alt='image name'>

* How do you change the color of text using CSS?

color: red;

* How do you change the font of text using CSS?

font-family: Arial;

* What is the "background-color" property in CSS used for?

"background-color" property is used to change background color of an element .

* How do you create a bulleted list using HTML?

<ul>

<li>1</li>

<li>2</li>

</ul>

* How do you create a numbered list using HTML?

<ol>

<li>1</li>

<li>2</li>

</ol>

* How do you add a line break in HTML?

<br>

* Two trains are 400 km apart, traveling towards each other along a straight track. Train A travels at 80 km/h, and Train B travels at 100 km/h. A bird starts flying from the front of Train A at a speed of 120 km/h. When it reaches Train B, it immediately turns around and flies back towards Train A. The bird continues this back-and-forth flight until the trains collide. How far does the bird travel in total?
* What is the "border" property in CSS used for?

"border" property is used to change border settings of an element.

* What is the "text-align" property in CSS used for?

"text-align" property is used to position text of an element.

* How do you change the size of text using CSS?

font-size: 10px;

* How do you change the background image of an element using CSS?

background-image: url('imageurl.png');

* What is the difference between a "div" and a "span" element in HTML?
* How do you create a table in HTML?
* How do you merge cells in a table using HTML?
* How do you add a caption to a table in HTML?
* Imagine a cube with a side length of 2 units. Now, imagine a sphere that is inscribed within this cube, just touching the center of each face. What is the volume of the sphere?
* How do you add a border to a table using CSS?
* How do you change the size of an image using CSS?
* How can you create a layout using CSS Grid to have an item span multiple rows and columns?
* What is the difference between the ::before and ::after pseudo-elements in CSS?
* How can you make sure that a block-level element with a set width and height is perfectly centered both horizontally and vertically within its parent element?
* What is the difference between a "rem" unit and an "em" unit in CSS?
* How can you use CSS to create a custom underline style for links?
* How can you use the "nth-child" selector in CSS to target only the first five list items in an unordered list?
* How can you use CSS to create a responsive design that adjusts the layout based on the screen size of the device?
* Which famous explorer was the first European to reach India by sea, and also discovered a sea route to Brazil?
* What was the name of the first cloned mammal, and in what year was it cloned?
* Which African country was never colonized by European powers during the Scramble for Africa in the late 19th century?
* Find the sum of all positive integers n for which the equation 5^n - 24n - 5 = 0 is true.
* How can you create a hover effect on an image that changes the color of the image's border without affecting the image itself?
* How can you use CSS to create a drop cap effect on the first letter of a paragraph?
* How can you use CSS to create a multi-column layout that automatically adjusts the number of columns based on the available screen width?
* How can you use CSS to create a fixed header that stays at the top of the screen even when the user scrolls down?
* There are three boxes in front of you. One box contains only apples, another box contains only oranges, and the last box contains a mix of apples and oranges. All boxes are labeled, but the labels are incorrect. You are allowed to pick one fruit from one box without looking into the box. Which box should you choose to pick a fruit from in order to correctly identify the contents of all three boxes?
* How can you use CSS to create a progress bar that tracks the progress of a user through a multi-step form?
* How can you use CSS to create a parallax effect that gives the illusion of depth when the user scrolls down a page?
* How can you use CSS to create a diagonal background pattern behind a block-level element?
* How can you use CSS to create a button with rounded corners that changes color when the user hovers over it?
* Who was the first person to sail around the world solo, non-stop, and unassisted, and in what year did he accomplish this feat?
* What was the name of the first successful powered airplane, and who were the two brothers who designed and flew it?
* Which ancient civilization developed the concept of zero in mathematics, and where is it believed to have originated?
* Which historical figure is believed to have invented the first flushing toilet, and in what century did this invention occur?
* How can you create a sticky navigation bar using CSS?
* What is the box model in CSS?
* What was the name of the first satellite launched into orbit, and which country launched it?
* Which African-American musician is often credited with inventing rock and roll, and what was his famous hit song that topped the charts in the 1950s?
* What was the name of the famous female pirate who commanded a fleet of ships in the Caribbean during the 1700s?
* Who was the first person to propose the concept of continental drift, and in what year did he present his theory?
* What is HTML used for?
* What was the name of the first US president to live in the White House, and in what year did he move into the residence?
* How can you use CSS to create a layout where the content of one column is taller than the content of the other column, but both columns have the same height visually?
* How can you use CSS to create a full-screen video background behind a block-level element?
* How can you use CSS to create a responsive navigation menu that collapses into a hamburger menu on smaller screens?
* How can you use CSS to create a timeline of events with arrows pointing from one event to the next?
* How can you use CSS to create a layout where the content of one column is sticky and stays in place while the other column scrolls?
* How can you create a CSS layout that is optimized for print?
* What are some techniques for optimizing website performance with CSS?
* How can you use CSS to create an accessible website that is compliant with WCAG 2.1 standards?
* How can you use CSS to create a seamless transition between different backgrounds on a webpage?
* How can you use CSS to create a layout with a sticky header and footer that remains in place as the user scrolls?
* How can you use CSS to create an animated menu that smoothly slides in from the side of the screen when triggered by a button?
* How can you use CSS to create an interactive timeline that highlights different events as the user scrolls down the page?
* How can you use CSS to create a responsive layout that adjusts to different screen sizes and devices?
* How can you use CSS to create a navigation menu with nested dropdowns that are accessible to keyboard and screen reader users?
* How can you use CSS to create a custom checkbox or radio button that maintains its style even after it is checked or selected?
* What does HTML stand for?
* What is an HTML tag?
* What is the difference between HTML and CSS?
* How do you create a paragraph in HTML?
* How do you create a hyperlink in HTML?
* How do you create a heading in HTML?
* How do you create an image in HTML?
* What is the purpose of an HTML attribute?
* What is the purpose of the HTML "title" element?
* What is the HTML doctype and why is it important?
* Observe the following sequence of numbers:3, 6, 18, 72, 360, 2160, ...What is the next number in the sequence?