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CSS Measurements

In CSS, there are many ways to resize an object to the exact way you desire. You can either choose a fixed size or absolute measurement or choose something with more volatility that’s relative. A relative measurement is needed when you want to scale text or an image with the whole page. This sizing method is more flexible in nature and is recommended as there are many different monitor sizes and devices out there. A downside is that images that are not made up of a vector might lose some quality if scaled to a higher resolution. Absolute units are used when you do not want content to scale along with the page. These units are typically used for prints. In contrast to relative units, an absolute unit can be used to maintain the size of the image and the quality. A downside to absolute units is that they can cause content to overlap which makes a webpage lose more modularity when content needs to be added in.

Relative Units:

1. **em:** Relative to the font-size of the element, allowing for cascading changes in size.
2. **rem:** Relative to the font-size of the root element, enabling consistent sizing across nested elements.
3. **% (percent):** Relative to the size of the parent element, providing scalable dimensions.
4. **vw (viewport width):** Relative to the width of the viewport, allowing for responsive design based on the browser window's width.
5. **vh (viewport height):** Relative to the height of the viewport, facilitating responsive design based on the browser window's height.
6. **vmin and vmax:** Relative to the smaller or larger dimension of the viewport, ensuring adaptable sizing regardless of the viewport's aspect ratio.

Absolute Units:

1. **px (pixels):** Represents an absolute length unit, providing fixed-size measurements that do not scale with the user's settings or device.
2. **pt (points):** Represents an absolute length unit commonly used in print, where 1 point is equal to 1/72nd of an inch.
3. **in (inches):** Represents an absolute length unit measured in inches.
4. **cm (centimeters):** Represents an absolute length unit measured in centimeters.
5. **mm (millimeters):** Represents an absolute length unit measured in millimeters.
6. **pc (picas):** Represents an absolute length unit commonly used in print, where 1 pica is equal to 12 points or 1/6th of an inch.
7. **Q (quarter-millimeters):** Represents an absolute length unit measured in quarter-millimeters, primarily used in typography.